

=> d que 11
L1 1 SEA FILE=HCAPLUS ABB=ON PLU=ON US2006-583553/APPS

=> d ibib ed abs ind 11
YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y

L1 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:564677 HCAPLUS Full-text
DOCUMENT NUMBER: 143:60090
TITLE: Specific process for preparing silicon compounds bearing fluoroalkyl groups by hydrosilylation
INVENTOR(S): Just, Eckhard; Giessler, Sabine; Jenkner, Peter
PATENT ASSIGNEE(S): Degussa A.-G., Germany
SOURCE: PCT Int. Appl., 19 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005058919	A1	20050630	WO 2004-EP52608	20041021
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10361893	A1	20050721	DE 2003-10361893	20031219
EP 1694687	A1	20060830	EP 2004-791275	20041021
EP 1694687	B1	20070711		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1894262	A	20070110	CN 2004-80037997	20041021
JP 2007514708	T	20070607	JP 2006-544399	20041021
AT 366736	T	20070815	AT 2004-791275	20041021
US 2007112213	A1	20070517	US 2006-583553	20060619 <--
PRIORITY APPLN. INFO.:			DE 2003-10361893	A 20031219
			WO 2004-EP52608	W 20041021

OTHER SOURCE(S): CASREACT 143:60090; MARPAT 143:60090

ED Entered STN: 30 Jun 2005

AB The present invention relates to a process for preparing silicon compds. bearing fluoroalkyl groups by hydrosilylation of a fluorooolefin in the presence of a hydrosilylation catalyst, which comprises initially charging and heating a hydrogen chlorosilane, then metering in the fluorooolefin and reacting the reaction mixture and subsequently isolating the hydrosilylation product. Thus, platinum divinyltetramethylidisiloxane complex catalyzed hydrosilylation of 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctene with trichlorosilane in xylene at 5.7-7.5 bar at 106°-124° gave 93% trichloro(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)silane in 4.8h.

IC ICM C07F007-08
 CC 29-6 (Organometallic and Organometalloidal Compounds)
 ST silane fluoroalkyl prep; platinum divinyltetramethyldisiloxane complex catalyzed hydrosilylation fluoro olefin
 IT Alkenes, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (fluoro; preparation of silicon compds. bearing fluoroalkyl groups by platinum divinyltetramethyldisiloxane complex catalyzed hydrosilylation of fluoroolefin)
 IT Hydrosilylation
 Hydrosilylation catalysts
 (preparation of silicon compds. bearing fluoroalkyl groups by platinum divinyltetramethyldisiloxane complex catalyzed hydrosilylation of fluoroolefin)
 IT 81032-58-8
 RL: CAT (Catalyst use); USES (Uses)
 (preparation of silicon compds. bearing fluoroalkyl groups by platinum divinyltetramethyldisiloxane complex catalyzed hydrosilylation of fluoroolefin)
 IT 677-21-4, 3,3,3-Trifluoro-1-propene 1428-33-7, 1,1,2,2-Tetrafluoroethyl allyl ether 10025-78-2, Trichlorosilane 21652-58-4 25291-17-2 30389-25-4 67103-05-3
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of silicon compds. bearing fluoroalkyl groups by platinum divinyltetramethyldisiloxane complex catalyzed hydrosilylation of fluoroolefin)
 IT 78560-45-9P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of silicon compds. bearing fluoroalkyl groups by platinum divinyltetramethyldisiloxane complex catalyzed hydrosilylation of fluoroolefin)
 REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d que 12
 L2 1 SEA FILE=WPIX ABB=ON PLU=ON US2006-583553/APPS

=> d iall code 12
 YOU HAVE REQUESTED DATA FROM FILE 'WPIX' - CONTINUE? (Y)/N:y

L2 ANSWER 1 OF 1 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
 ACCESSION NUMBER: 2005-479310 [48] WPIX
 DOC. NO. CPI: C2005-145947 [48]
 TITLE: Preparation of fluoroalkyl-bearing silicon compound, e.g. fluoroalkylchlorosilane, by hydrosilylation comprises initially charging and heating hydrogenchlorosilane and then metering in fluoroolefin
 DERWENT CLASS: E11
 INVENTOR: GIESSLER S; JENKNER P; JUST E
 PATENT ASSIGNEE: (DEGS-C) DEGUSSA AG; (GIES-I) GIESSLER S; (JENK-I) JENKNER P; (JUST-I) JUST E; (DEGS-C) DEGUSSA GMBH
 COUNTRY COUNT: 107

PATENT INFORMATION:

PATENT NO	KIND DATE	WEEK	LA	PG	MAIN IPC
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WO 2005058919 A1 20050630 (200548)* EN 19[0]
 DE 10361893 A1 20050721 (200548) DE
 EP 1694687 A1 20060830 (200657) EN
 US 20070112213 A1 20070517 (200734) EN
 JP 2007514708 W 20070607 (200739) JA 18
 CN 1894262 A 20070110 (200740) ZH
 EP 1694687 B1 20070711 (200746) EN
 DE 602004007549 E 20070823 (200757) DE

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2005058919	A1	WO 2004-EP52608	20041021
DE 10361893	A1	DE 2003-10361893	20031219
CN 1894262	A	CN 2004-80037997	20041021
EP 1694687	A1	EP 2004-791275	20041021
EP 1694687	B1	EP 2004-791275	20041021
EP 1694687	A1	WO 2004-EP52608	20041021
US 20070112213	A1	WO 2004-EP52608	20041021
JP 2007514708	W	WO 2004-EP52608	20041021
EP 1694687	B1	WO 2004-EP52608	20041021
JP 2007514708	W	JP 2006-544399	20041021
US 20070112213	A1	US 2006-583553 20060619	
DE 602004007549	E	DE 2004-602004007549	20041021
DE 602004007549	E	EP 2004-791275	20041021
DE 602004007549	E	WO 2004-EP52608	20041021

FILING DETAILS:

PATENT NO	KIND	PATENT NO		
EP 1694687	A1	Based on	WO 2005058919	A
JP 2007514708	W	Based on	WO 2005058919	A
EP 1694687	B1	Based on	WO 2005058919	A
DE 602004007549	E	Based on	EP 1694687	A
DE 602004007549	E	Based on	WO 2005058919	A

PRIORITY APPLN. INFO: DE 2003-10361893 20031219

INT. PATENT CLASSIF.:

IPC ORIGINAL: C07F0007-00 [I,A]; C07F0007-00 [I,C]; C07F0007-00 [I,C];
 C07F0007-00 [I,C]; C07F0007-08 [I,A]; C07F0007-08 [I,A]

IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-14 [I,A]

BASIC ABSTRACT:

WO 2005058919 A1 UPAB: 20051223

NOVELTY - Preparing a silicon compound bearing fluoroalkyl group(s) by hydrosilylation of a fluoroolefin in the presence of a platinum-containing hydrosilylation catalyst comprises initially charging and heating a hydrogenchlorosilane; then metering in the fluoroolefin and reacting the reaction mixture; and subsequently isolating the hydrosilylation product.

USE - For preparing fluoroalkylchlorosilanes and fluoroalkylalkoxysilanes.

ADVANTAGE - The invention prepares fluoroalkylchlorosilanes on an industrial scale in a simple economical and reliable manner by hydrosilylation of fluoroolefins in the presence of a platinum catalyst, even on an industrial scale and without unexpected catalyst deactivation, when a fluoroolefin having a very low iodide or iodine content is used.. The process of the invention has reduced sensitivity of the reaction to impurities in the olefin, since if the reaction does not start, the process can be stopped in good time. As a result, the extremely

expensive fluoroolefin is saved and the fluoroolefin does not have to be discarded as an unusable mixture. The process can be operated at a higher temperature, which results in even better utilization of the catalyst activity.

MANUAL CODE: CPI: E05-E01C; E05-E02B; E05-E02C; E05-E02D; E11-H;
N02-F; N07-D

AN 2005-479310 [48] WPIX

DC E11

IPCI C07F0007-00 [I,A]; C07F0007-00 [I,C]; C07F0007-00 [I,C]; C07F0007-00
[I,C]; C07F0007-08 [I,A]; C07F0007-08 [I,A]

IPCR C07F0007-00 [I,C]; C07F0007-14 [I,A]

MC CPI: E05-E01C; E05-E02B; E05-E02C; E05-E02D; E11-H; N02-F; N07-D

CMC UPB 20051223

DRN: 1998-S

DCR: 129547-S 2194-S

M3 *01* B414 B720 B741 B752 B831 C017 H6 H601 H609 H684 H685 H689 M280
M315 M321 M332 M344 M361 M391 M411 M510 M520 M530 M540 M620 M720
N164 N209 N213 N263 N309 N353 N441 N513 M905 M904

DCN: RA05F1-K RA05F1-P

DCR: 207474-K 207474-P

M3 *02* B414 B514 B711 B712 B713 B720 B741 B742 B743 B744 B751 B752 B760
B831 C017 C035 G001 G002 G010 G018 G019 G020 G021 G029 G030 G031
G032 G039 G040 G050 G051 G100 G111 G112 G113 G221 G299 G553 G563
H541 H542 H543 H581 H582 H583 H584 H594 H598 H599 H6 H601 H608
H609 H643 H681 H682 H683 H684 H685 H689 M121 M122 M123 M124 M125
M126 M129 M144 M210 M211 M212 M213 M214 M215 M216 M220 M221 M222
M223 M224 M225 M226 M231 M232 M233 M250 M272 M280 M281 M282 M283
M311 M312 M313 M314 M315 M316 M321 M322 M323 M331 M332 M333 M334
M340 M342 M343 M344 M351 M361 M362 M373 M391 M392 M393 M411 M510
M520 M530 M531 M532 M533 M540 M541 M542 M543 M620 M720 N164 N209
N213 N263 N309 N353 N441 N513 M905 M904

MCN: 0200-30401-K 0200-30401-P

M3 *03* B114 B720 B752 B760 B831 C017 C100 C101 C800 C804 C805 C806 C807
M411 M730 M905 M904

DCN: R03423-K R03423-S

DCR: 356-K 356-S

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M363 M391 M416 M730 M905 M904

DCN: RA77V6-K RA77V6-S

DCR: 25918-K 25918-S

M3 *05* A678 A910 A923 B414 B712 B720 B744 B798 B832 C710 C801 C802 C803
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M411 M510 M520 M530 M540 M730 M770 Q421 M905 M904

DCN: RA00AL-C RA00AL-K

DCR: 200553-C 200553-K

M3 *06* A678 A940 A980 C017 C100 C101 C730 C801 C803 C804 C805 C806 C807
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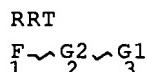
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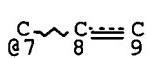
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L18

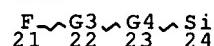
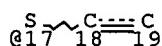
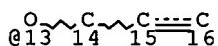
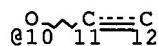
STR



Cy @4



PRO



VAR G1=5/7/10/13/17

VAR G2=AK/4

VAR G3=AK/CY

REP G4=(0-20) A

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 24

STEREO ATTRIBUTES: NONE

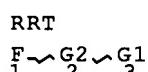
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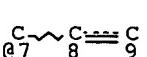
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L18

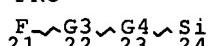
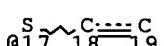
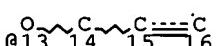
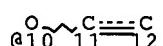
STR



Cy @4



PRO



VAR G1=5/7/10/13/17

VAR G2=AK/4

VAR G3=AK/CY

REP G4=(0-20) A

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

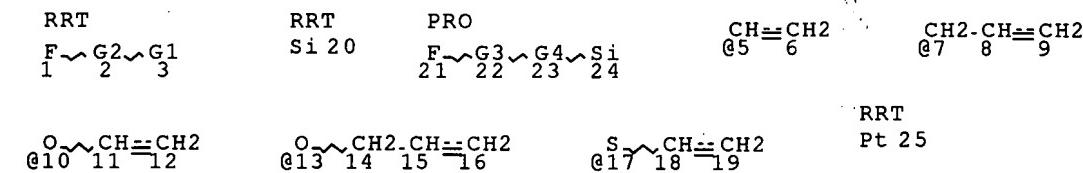
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STEREO ATTRIBUTES: NONE

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L21

STR



VAR G1=5/7/10/13/17

VAR G2=AK/CY

VAR G3=AK/CY

REP G4=(0-20) A

NODE ATTRIBUTES:

NSPEC IS RC AT 25

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 24

STEREO ATTRIBUTES: NONE

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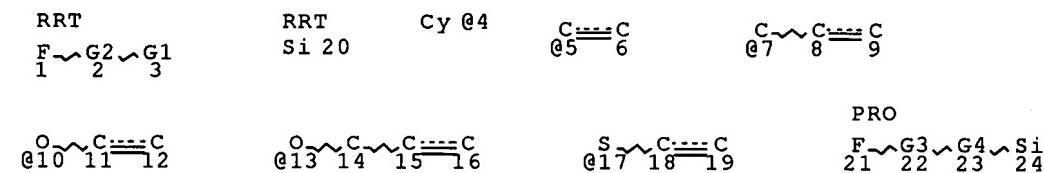
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1 DOCS

SEARCH TIME: 00.00.01

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L18 STR



VAR G1=5/7/10/13/17

VAR G2=AK/4

VAR G3=AK/CY

REP G4=(0-20) A

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 24

STEREO ATTRIBUTES: NONE

L20 294 SEA FILE=CASREACT SSS FUL L18 (2129 REACTIONS)

L24 STR

RRT
 $\text{F} \sim \text{G}_2 \sim \text{G}_1$
 $\begin{matrix} 1 & \\ 2 & \\ 3 & \end{matrix}$

RRT PRO CY @4 C ~~5~~ 6
 $\text{Si} \ 20$
 $\text{E} \sim \text{G}_3 \sim \text{G}_4 \sim \text{Si}$
 $\begin{matrix} 21 & \\ 22 & \\ 23 & \\ 24 & \end{matrix}$

CY @4 C ~~5~~ 6
 $\begin{matrix} 6 & \\ 5 & \end{matrix}$

RRT
Pt 25

$\text{C}_7 \sim \text{C} \equiv \text{C}_9$

$\text{O} \sim \text{C} \equiv \text{C}_{12}$

$\text{O} \sim \text{C} \sim \text{C} \equiv \text{C}_{16}$

$\text{S} \sim \text{C} \equiv \text{C}_{19}$

VAR G1=5/7/10/13/17

VAR G2=AK/4

VAR G3=AK/CY

REP G4=(0-20) A

NODE ATTRIBUTES:

NSPEC IS RC AT 25

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 25

STEREO ATTRIBUTES: NONE

L26 2 SEA FILE=CASREACT SUB=L20 SSS FUL L24 (6 REACTIONS)

100.0% DONE 6 VERIFIED 6 HIT RXNS 2 DOCS
SEARCH TIME: 00.00.01

=> d que nos 132

L18 STR
L20 294 SEA FILE=CASREACT SSS FUL L18 (2129 REACTIONS)
L21 STR
L23 1 SEA FILE=CASREACT SUB=L20 SSS FUL L21 (5 REACTIONS)
L24 STR
L26 2 SEA FILE=CASREACT SUB=L20 SSS FUL L24 (6 REACTIONS)
L28 29 SEA FILE=CASREACT ABB=ON PLU=ON L20 AND (PT?/BI,AB OR
?PLATIN?/BI,AB OR HPT?/BI,AB)
L29 29 SEA FILE=CASREACT ABB=ON PLU=ON L28 OR L23 OR L26
L31 7 SEA FILE=CASREACT ABB=ON PLU=ON L20 AND (?H2PT?/BI,AB)
L32 31 SEA FILE=CASREACT ABB=ON PLU=ON L31 OR L29

=> d que nos 141

L18 STR
L20 294 SEA FILE=CASREACT SSS FUL L18 (2129 REACTIONS)
L21 STR
L23 1 SEA FILE=CASREACT SUB=L20 SSS FUL L21 (5 REACTIONS)
L24 STR
L26 2 SEA FILE=CASREACT SUB=L20 SSS FUL L24 (6 REACTIONS)
L28 29 SEA FILE=CASREACT ABB=ON PLU=ON L20 AND (PT?/BI,AB OR
?PLATIN?/BI,AB OR HPT?/BI,AB)
L29 29 SEA FILE=CASREACT ABB=ON PLU=ON L28 OR L23 OR L26
L31 7 SEA FILE=CASREACT ABB=ON PLU=ON L20 AND (?H2PT?/BI,AB)
L32 31 SEA FILE=CASREACT ABB=ON PLU=ON L31 OR L29
L33 QUE ABB=ON PLU=ON JUST, E?/AU
L34 QUE ABB=ON PLU=ON GIESSLER, S?/AU

10/583,553

L35 QUE ABB=ON PLU=ON JENKNER, P?/AU
L36 QUE ABB=ON PLU=ON (DEGUSSA OR (DE(W) GUSSA)) /CS, SO, PA
L37 QUE ABB=ON PLU=ON AY<2005 OR PY<2005 OR PRY<2005 OR MY
 <2005 OR REVIEW/DT
L39 2 SEA FILE=CASREACT ABB=ON PLU=ON L32 AND (L33 OR L34 OR L35
 OR L36)
L40 29 SEA FILE=CASREACT ABB=ON PLU=ON L32 NOT L39
L41 26 SEA FILE=CASREACT ABB=ON PLU=ON L40 AND L37

=> d que stat 143

L18 STR

RRT

F~G2~G1
1 2 3

RRT

Si 20

Cy @4

C---C
@5 6

C~~C---C
@7 8 9

PRO

O~C---C
@10 11 12

O~C~~C---C
@13 14 15 16

S~C---C
@17 18 19

F~G3~G4~Si
21 22 23 24

VAR G1=5/7/10/13/17

VAR G2=AK/4

VAR G3=AK/CY

REP G4=(0-20) A

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 24

STEREO ATTRIBUTES: NONE

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100.0% DONE 5245 VERIFIED 385 HIT RXNS

117 DOCS

SEARCH TIME: 00.00.41

=> d que stat 145

L18 STR

RRT

F~G2~G1
1 2 3

RRT

Si 20

Cy @4

C---C
@5 6

C~~C---C
@7 8 9

PRO

O~C---C
@10 11 12

O~C~~C---C
@13 14 15 16

S~C---C
@17 18 19

F~G3~G4~Si
21 22 23 24

VAR G1=5/7/10/13/17

VAR G2=AK/4

VAR G3=AK/CY

REP G4=(0-20) A

NODE ATTRIBUTES:

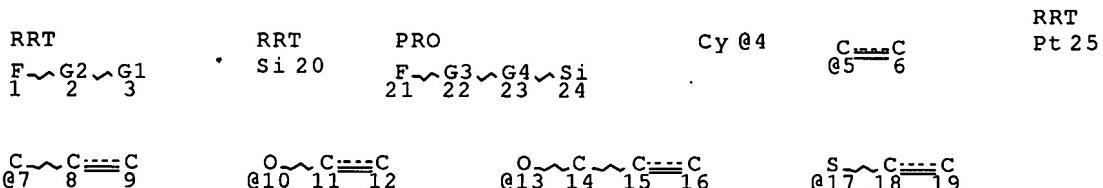
DEFAULT MLEVEL IS ATOM
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GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 24

STEREO ATTRIBUTES: NONE

L24 STR



VAR G1=5/7/10/13/17

VAR G2=AK/4

VAR G3=AK/CY

REP G4=(0-20) A

NODE ATTRIBUTES:

NSPEC IS RC AT 25

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 25

STEREO ATTRIBUTES: NONE

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100.0% DONE 0 VERIFIED 0 HIT RXNS 0 DOCS
 SEARCH TIME: 00.00.02

=> d que nos 150

L18 STR
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 <2005 OR REVIEW/DT
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 L46 4 SEA FILE=CHEMINFORMRX ABB=ON PLU=ON L43 AND ((PT?/BI,AB OR
 ?PLATIN?/BI,AB OR HPT?/BI,AB) OR (?H2PT?/BI,AB))
 L47 0 SEA FILE=CHEMINFORMRX ABB=ON PLU=ON L43 AND ((PT?/TI OR
 ?PLATIN?/TI OR HPT?/TI) OR (?H2PT?/TI))
 L48 4 SEA FILE=CHEMINFORMRX ABB=ON PLU=ON L46 OR L47
 L50 4 SEA FILE=CHEMINFORMRX ABB=ON PLU=ON L48 AND L37

=> d que 188

L1 1 SEA FILE=HCAPLUS ABB=ON PLU=ON US2006-583553/APPS
 L3 TRANSFER PLU=ON L1 1- RN : 9 TERMS
 L4 9 SEA FILE=REGISTRY ABB=ON PLU=ON L3
 L5 1 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND "CL3 H SI"/MF

L6 1 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND F/ELS AND CL/ELS
 L7 7 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND F/ELS
 L8 6 SEA FILE=REGISTRY ABB=ON PLU=ON L7 NOT L6
 L9 1 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND PT/ELS
 L27 QUE ABB=ON PLU=ON PT? OR ?PLATIN? OR HPT?
 L30 QUE ABB=ON PLU=ON ?H2PT?
 L33 QUE ABB=ON PLU=ON JUST, E?/AU
 L34 QUE ABB=ON PLU=ON GIESSLER, S?/AU
 L35 QUE ABB=ON PLU=ON JENKNER, P?/AU
 L36 QUE ABB=ON PLU=ON (DEGUSSA OR (DE(W)GUSSA))/CS, SO, PA
 L37 QUE ABB=ON PLU=ON AY<2005 OR PY<2005 OR PRY<2005 OR MY
 <2005 OR REVIEW/DT
 L51 QUE ABB=ON PLU=ON HYDROSIL? OR (HYDRO(W)(SILAT? OR SIL
 YLAT?))
 L52 QUE ABB=ON PLU=ON ?FLUOROLEFIN? OR ?FLUOROALKEN? OR
 (?FLUOR? OR PERFLUOR? OR OLIGOFLUOR? OR DIFLUOR? OR TRIFL
 UOR?) (3A) (?OLEFIN? OR ?ALKEN?))
 L53 QUE ABB=ON PLU=ON ?CHLOROSIL? OR ((?CHLOR? OR DICHLOR?
 OR TRICHLOR?) (3A) (?SILYL? OR ?SILAN?)) OR (?SILYL?(1T)?C
 HLORID?) OR (?SILYL?(1W)?CHLORID?)
 L54 QUE ABB=ON PLU=ON ?CL6PT?
 L55 QUE ABB=ON PLU=ON ?HEXACHLOROPLATIN?
 L56 QUE ABB=ON PLU=ON ?CATALY?
 L57 QUE ABB=ON PLU=ON F OR ?FLUORO? OR ?FLUORID?
 L58 QUE ABB=ON PLU=ON ?FLUORIN?
 L59 QUE ABB=ON PLU=ON CL OR CHLORINAT? OR ?CHLORO? OR ?CHL
 ORID?
 L60 QUE ABB=ON PLU=ON SI OR SILICON
 L61 QUE ABB=ON PLU=ON "ALKENES, REACTIONS"+PFT, OLD, NEW, NT/
 CT
 L62 QUE ABB=ON PLU=ON ALKENES+PFT, OLD, NEW/CT (L) (L57 OR L
 58)
 L63 QUE ABB=ON PLU=ON L61 (L) (L57 OR L58)
 L64 QUE ABB=ON PLU=ON HYDROSILYLATION+PFT, OLD, NEW, NT/CT
 L65 QUE ABB=ON PLU=ON "HYDROSILYLATION CATALYSTS"+PFT, OLD,
 NEW, NT/CT
 L67 14 SEA FILE=HCAPLUS ABB=ON PLU=ON L6 (L) (PREP+NT)/RL
 L68 431 SEA FILE=HCAPLUS ABB=ON PLU=ON L8 (L) (RACT+NT)/RL
 L69 2354 SEA FILE=HCAPLUS ABB=ON PLU=ON L5 (L) (RACT+NT)/RL
 L70 9 SEA FILE=HCAPLUS ABB=ON PLU=ON L68 AND L69 AND L67
 L71 182 SEA FILE=HCAPLUS ABB=ON PLU=ON L9 (L) CAT/RL
 L72 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L70 AND L71
 L73 1594 SEA FILE=HCAPLUS ABB=ON PLU=ON ((L62 OR L63)) (L) (RACT+NT)/RL
 L74 1963 SEA FILE=HCAPLUS ABB=ON PLU=ON L68 OR L73
 L75 45 SEA FILE=HCAPLUS ABB=ON PLU=ON L74 (L)L51
 L76 36 SEA FILE=HCAPLUS ABB=ON PLU=ON L74 AND L64
 L77 31 SEA FILE=HCAPLUS ABB=ON PLU=ON L74 AND L69
 L78 875 SEA FILE=HCAPLUS ABB=ON PLU=ON L65 (L) (L27 OR L30 OR L54 OR
 L55)
 L79 11 SEA FILE=HCAPLUS ABB=ON PLU=ON (L75 OR L76 OR L77) AND L78
 L80 19 SEA FILE=HCAPLUS ABB=ON PLU=ON (L75 OR L76 OR L77) AND
 ((PT?/OBI OR ?PLATIN?/OBI OR HPT?/OBI) OR (?H2PT?/OBI) OR
 (?CL6PT?/OBI) OR (?HEXACHLOROPLATIN?/OBI))
 L81 24 SEA FILE=HCAPLUS ABB=ON PLU=ON L70 OR L72 OR L79 OR L80
 L82 24 SEA FILE=HCAPLUS ABB=ON PLU=ON L81 AND (L27 OR L30 OR (L51
 OR L52 OR L53 OR L54 OR L55 OR L56 OR L57 OR L58 OR L59 OR L60
 OR L61 OR L62 OR L63 OR L64 OR L65))
 L83 24 SEA FILE=HCAPLUS ABB=ON PLU=ON (L81 OR L82)
 L84 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L83 AND (L33 OR L34 OR L35 OR

L36)

L85 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L84 AND L1
 L86 2 SEA FILE=HCAPLUS ABB=ON PLU=ON (L84 OR L85)
 L87 22 SEA FILE=HCAPLUS ABB=ON PLU=ON L83 NOT L86
 L88 18 SEA FILE=HCAPLUS ABB=ON PLU=ON L87 AND L37

=> d his l100

(FILE 'USPATFULL, USPATOLD, USPAT2' ENTERED AT 13:34:34 ON 25 OCT 2007)
 L100 6 S L99 AND L38

=> d que l100

L1 1 SEA FILE=HCAPLUS ABB=ON PLU=ON US2006-583553/APPS
 L3 TRANSFER PLU=ON L1 '1- RN : 9 TERMS
 L4 9 SEA FILE=REGISTRY ABB=ON PLU=ON L3
 L5 1 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND "CL3 H SI"/MF
 L6 1 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND F/ELS AND CL/ELS
 L7 7 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND F/ELS
 L8 6 SEA FILE=REGISTRY ABB=ON PLU=ON L7 NOT L6
 L9 1 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND PT/ELS
 L33 QUE ABB=ON PLU=ON JUST, E?/AU
 L34 QUE ABB=ON PLU=ON GIESSLER, S?/AU
 L35 QUE ABB=ON PLU=ON JENKNER, P?/AU
 L36 QUE ABB=ON PLU=ON (DEGUSSA OR (DE(W)GUSSA))/CS, SO, PA
 L38 QUE ABB=ON PLU=ON AY<2005 OR PY<2005 OR PRY<2005
 L66 QUE ABB=ON PLU=ON C07F0007-14/IPC
 L89 243 SEA L66
 L90 226 SEA L8
 L91 101 SEA L6
 L92 7 SEA L89 AND (L90 OR L91)
 L93 1312 SEA L5
 L94 6 SEA L92 AND L93
 L95 81 SEA L9
 L96 2 SEA L92 AND L95
 L97 7 SEA L92 OR L94 OR L96
 L98 1 SEA L97 AND (L33 OR L34 OR L35 OR L36)
 L99 6 SEA L97 NOT L98
 L100 6 SEA L99 AND L38

=> d que l120

L27 QUE ABB=ON PLU=ON PT? OR ?PLATIN? OR HPT?
 L30 QUE ABB=ON PLU=ON ?H2PT?
 L33 QUE ABB=ON PLU=ON JUST, E?/AU
 L34 QUE ABB=ON PLU=ON GIESSLER, S?/AU
 L35 QUE ABB=ON PLU=ON JENKNER, P?/AU
 L36 QUE ABB=ON PLU=ON (DEGUSSA OR (DE(W)GUSSA))/CS, SO, PA
 L38 QUE ABB=ON PLU=ON AY<2005 OR PY<2005 OR PRY<2005
 L51 QUE ABB=ON PLU=ON HYDROSIL? OR (HYDRO(W)(SILAT? OR SILYLAT?))
 L52 QUE ABB=ON PLU=ON ?FLUOROLEFIN? OR ?FLUOROALKEN? OR (?FLUOR? OR PERFLUOR? OR OLIGOFLUOR? OR DIFLUOR? OR TRIFLUOR?) (3A) (?OLEFIN? OR ?ALKEN?)
 L53 QUE ABB=ON PLU=ON ?CHLOROSIL? OR ((?CHLOR? OR DICHLOR? OR TRICHLOR?) (3A) (?SILYL? OR ?SILAN?)) OR (?SILYL?(1T)?CHLORID?)
 L54 QUE ABB=ON PLU=ON ?CL6PT?
 L55 QUE ABB=ON PLU=ON ?HEXACHLOROPLATIN?
 L56 QUE ABB=ON PLU=ON ?CATALY?

L57 QUE ABB=ON PLU=ON F OR ?FLUORO? OR ?FLUORID?
 L58 QUE ABB=ON PLU=ON ?FLUORIN?
 L59 QUE ABB=ON PLU=ON CL OR CHLORINAT? OR ?CHLORO? OR ?CHL
 ORID?
 L60 QUE ABB=ON PLU=ON SI OR SILICON
 L66 QUE ABB=ON PLU=ON C07F0007-14/IPC
 L101 QUE ABB=ON PLU=ON N02-F/MC
 L102 QUE ABB=ON PLU=ON (A678(P)Q421)/M0,M1,M2,M3,M4,M5,M6
 L103 QUE ABB=ON PLU=ON (H721(P)M730(P)(H601 OR H609 OR H685
 OR H684 OR H689))/M0,M1,M2,M3,M4,M5,M6
 L104 QUE ABB=ON PLU=ON (B114(P)M730(P)(B751 OR B752))/M0,M1
 ,M2,M3,M4,M5,M6
 L105 QUE ABB=ON PLU=ON (B414(P)M720(P)N213(P)(H601 OR H509
 OR H684 OR H685 OR H689))/M0,M1,M2,M3,M4,M5,M6
 L106 2 SEA FILE=WPIX ABB=ON PLU=ON L102 AND L103 AND L104 AND L105
 L107 362 SEA FILE=WPIX ABB=ON PLU=ON C07F0007-14/IPC
 L108 38 SEA FILE=WPIX ABB=ON PLU=ON L107 AND L105
 L109 28 SEA FILE=WPIX ABB=ON PLU=ON L108 AND (L101 OR L102)
 L110 2 SEA FILE=WPIX ABB=ON PLU=ON L103 AND L104 AND L105 AND (L101
 OR L102)
 L111 29 SEA FILE=WPIX ABB=ON PLU=ON L106 OR L109 OR L110
 L112 20 SEA FILE=WPIX ABB=ON PLU=ON L51 (10A) L52
 L113 2 SEA FILE=WPIX ABB=ON PLU=ON L112 (20A) L53
 L114 30 SEA FILE=WPIX ABB=ON PLU=ON L111 OR L113
 L115 28 SEA FILE=WPIX ABB=ON PLU=ON L114 AND L66
 L116 30 SEA FILE=WPIX ABB=ON PLU=ON L114 OR L115
 L117 30 SEA FILE=WPIX ABB=ON PLU=ON L116 AND (L27 OR L30 OR (L51 OR
 L52 OR L53 OR L54 OR L55 OR L56 OR L57 OR L58 OR L59 OR L60))
 L118 6 SEA FILE=WPIX ABB=ON PLU=ON L117 AND (L33 OR L34 OR L35 OR
 L36)
 L119 24 SEA FILE=WPIX ABB=ON PLU=ON L117 NOT L118
 L120 24 SEA FILE=WPIX ABB=ON PLU=ON L119 AND L38

=> d his l133

(FILE 'MEDLINE, BIOSIS, EMBASE, PASCAL, SCISEARCH, CONFSCI, DISSABS'
 ENTERED AT 13:53:33 ON 25 OCT 2007)
 L133 5 S L132 AND (L56 OR L60 OR L57-L58 OR L59)

=> d que l133

L27 QUE ABB=ON PLU=ON PT? OR ?PLATIN? OR HPT?
 L30 QUE ABB=ON PLU=ON ?H2PT?
 L51 QUE ABB=ON PLU=ON HYDROSIL? OR (HYDRO(W) (SILAT? OR SIL
 YLAT?))
 L52 QUE ABB=ON PLU=ON ?FLUOROLEFIN? OR ?FLUOROALKEN? OR (
 (?FLUOR? OR PERFLUOR? OR OLIGOFLUOR? OR DIFLUOR? OR TRIFL
 UOR?) (3A) (?OLEFIN? OR ?ALKEN?))
 L53 QUE ABB=ON PLU=ON ?CHLOROSIL? OR ((?CHLOR? OR DICHLOR?
 OR TRICHLOR?) (3A) (?SILYL? OR ?SILAN?)) OR (?SILYL?(1T)?C
 HLORID?) OR (?SILYL?(1W)?CHLORID?)
 L54 QUE ABB=ON PLU=ON ?CL6PT?
 L55 QUE ABB=ON PLU=ON ?HEXACHLOROPLATIN?
 L56 QUE ABB=ON PLU=ON ?CATALY?
 L57 QUE ABB=ON PLU=ON F OR ?FLUORO? OR ?FLUORID?
 L58 QUE ABB=ON PLU=ON ?FLUORIN?
 L59 QUE ABB=ON PLU=ON CL OR CHLORINAT? OR ?CHLORO? OR ?CHL
 ORID?
 L60 QUE ABB=ON PLU=ON SI OR SILICON
 L130 26 SEA L51(15A) L52

L131 6 SEA L130 (20A) L53
 L132 5 SEA L131 AND (L27 OR L30 OR L54 OR L55)
 L133 5 SEA L132 AND (L56 OR L60 OR (L57 OR L58) OR L59)

=> d his l129

(FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 13:52:34 ON 25 OCT 2007)
 L129 0 S L127-L128

=> d que l129

L1 1 SEA FILE=HCAPLUS ABB=ON PLU=ON US2006-583553/APPS
 L3 TRANSFER PLU=ON L1 1- RN : 9 TERMS
 L4 9 SEA FILE=REGISTRY ABB=ON PLU=ON L3
 L5 1 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND "CL3 H SI"/MF
 L6 1 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND F/ELS AND CL/ELS
 L7 7 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND F/ELS
 L8 6 SEA FILE=REGISTRY ABB=ON PLU=ON L7 NOT L6
 L125 2 SEA L8
 L126 27 SEA L5
 L127 0 SEA L6
 L128 0 SEA L125 AND L126
 L129 0 SEA (L127 OR L128)

=> d que l124

L52 QUE ABB=ON PLU=ON ?FLUOROOLEFIN? OR ?FLUOROALKEN? OR (?FLUOR? OR PERFLUOR? OR OLIGOFLUOR? OR DIFLUOR? OR TRIFLUOR?) (3A) (?OLEFIN? OR ?ALKEN?)
 L53 QUE ABB=ON PLU=ON ?CHLOROSIL? OR ((?CHLOR? OR DICHLOR? OR TRICHLOR?) (3A) (?SILYL? OR ?SILAN?)) OR (?SILYL?(1T)?CHLORID?) OR (?SILYL?(1W)?CHLORID?)
 L121 88 SEA FILE=JAPIO ABB=ON PLU=ON C07F0007-14/IPC
 L122 41 SEA FILE=JAPIO ABB=ON PLU=ON L121 AND L53
 L123 2 SEA FILE=JAPIO ABB=ON PLU=ON L121 AND L52
 L124 2 SEA FILE=JAPIO ABB=ON PLU=ON L122 AND L123

=> dup rem 141 150 188 1100 1120 1124 1133 1129

L129 HAS NO ANSWERS

DUPLICATE IS NOT AVAILABLE IN 'CHEMINFORMRX'.

ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE

FILE 'CASREACT' ENTERED AT 14:08:14 ON 25 OCT 2007

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FILE 'CHEMINFORMRX' ENTERED AT 14:08:14 ON 25 OCT 2007

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FILE 'HCAPLUS' ENTERED AT 14:08:14 ON 25 OCT 2007

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FILE 'USPATFULL' ENTERED AT 14:08:14 ON 25 OCT 2007

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FILE 'WPIX' ENTERED AT 14:08:14 ON 25 OCT 2007

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FILE 'SCISEARCH' ENTERED AT 14:08:14 ON 25 OCT 2007

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PROCESSING COMPLETED FOR L41

PROCESSING COMPLETED FOR L50

PROCESSING COMPLETED FOR L88

PROCESSING COMPLETED FOR L100

PROCESSING COMPLETED FOR L120

PROCESSING COMPLETED FOR L124

PROCESSING COMPLETED FOR L133

PROCESSING COMPLETED FOR L129

L135 66 DUP REM L41 L50 L88 L100 L120 L124 L133 L129 (19 DUPLICATES
REMOVED)

ANSWERS '1-26' FROM FILE CASREACT
ANSWERS '27-30' FROM FILE CHEMINFORMRX
ANSWERS '31-37' FROM FILE HCPLUS
ANSWERS '38-39' FROM FILE USPATFULL
ANSWERS '40-62' FROM FILE WPIX
ANSWERS '63-64' FROM FILE JAPIO
ANSWERS '65-66' FROM FILE SCISEARCH

=> file stnguide

FILE 'STNGUIDE' ENTERED AT 14:08:36 ON 25 OCT 2007

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FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Oct 19, 2007 (20071019/UP).

=> d ibib abs fhit

YOU HAVE REQUESTED DATA FROM FILE 'CASREACT, CHEMINFORMRX, HCAPLUS, USPATFULL, WPIX, JAPIO, SCISEARCH' - CONTINUE? (Y)/N:y

L135 ANSWER 1 OF 66 CASREACT COPYRIGHT 2007 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 141:71714 CASREACT Full-text

TITLE: Process for preparation of alkyl silanes from hydrosilanes and olefins in presence of platinum catalyst

INVENTOR(S): Nikolaev, G. A.; Egorov, A. G.; Plashkin, V. S.; Khoroshavina, Yu. V.; Kolokol'tseva, I. G.; Lobkov, V. D.; Kormer, V. A.

PATENT ASSIGNEE(S): Russia

SOURCE: Russ., No pp. given

CODEN: RUXXE7

DOCUMENT TYPE: Patent

LANGUAGE: Russian

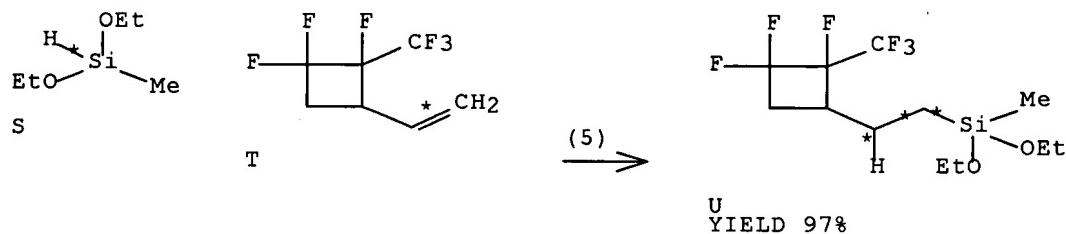
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RU 2219126	C2	20031220	RU 2001-119772	20010716
PRIORITY APPLN. INFO.:			RU 2001-119772	20010716

AB Alkyl silanes are prepared by reaction of hydrosilanes $\text{SiR}_2\text{X}_4-(a+b)$ ($a = 1-2$; $b = 0-1$) with olefins in presence of a platinum-containing catalyst at elevated temperature such that the catalyst and some or all of the hydrosilane are mixed at room temperature and then heated, after which the mixture is held for ≥ 0.5 h without addnl. heating, and then the remaining reagents are added; the product is isolated by vacuum distillation. In an example, 0.2 mol $\text{PhSi}(\text{H})\text{Cl}_2$ and 0.53 mL of a solution of $(\text{acac})_2\text{Pt}$ in acetone ($[\text{Pt}] = 10-4$ g-atom/mL) are heated at 170° for 1.5 h, after which the mixture was held for 24 h, followed by treatment with 0.85 mol $\text{PhSi}(\text{H})\text{Cl}_2$ and 1.05 mol 1-hexene and refluxing for 1 h, and recovery of product by vacuum distillation gave 98% $\text{PhSi}(\text{CH}_2\text{CH}_2\text{Bu})\text{Cl}_2$.

RX(5) OF 9 S + T ==> U



RX(5) RCT S 2031-62-1

STAGE(1)

CAT 7440-06-4D Pt
 CON SUBSTAGE(1) room temperature
 SUBSTAGE(2) 50 minutes, 95 deg C
 SUBSTAGE(3) 6 hours

STAGE(2)

RCT T 116850-32-9
 CON SUBSTAGE(2) 1 hour, reflux

PRO U 709612-15-7

=> d ibib abs fhit 2-26

YOU HAVE REQUESTED DATA FROM FILE 'CASREACT, CHEMINFORMRX, HCAPLUS, USPATFULL, WPIX, JAPIO, SCISEARCH' - CONTINUE? (Y)/N:y

L135 ANSWER 2 OF 66 CASREACT COPYRIGHT 2007 ACS on STN DUPLICATE 2

ACCESSION NUMBER: 136:263266 CASREACT Full-text

TITLE: Method for preparation of polyfluoro organosilicon compounds by hydrosilylation of polyfluoroolefins with hydrosilanes

INVENTOR(S): Choi, Jun Chul; Sakakura, Toshiyasu

PATENT ASSIGNEE(S): Sangyo Gijutsu Sogo Kenkyusho, Japan; National Institute of Advanced Industrial Science and Technology

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

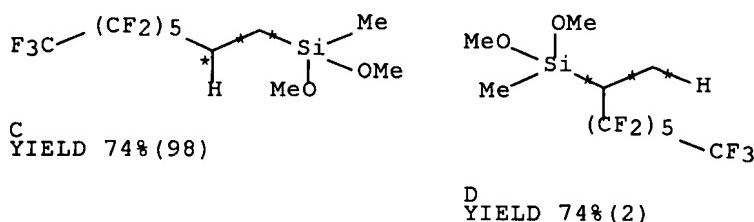
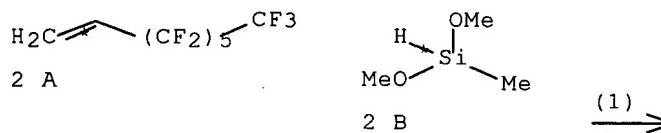
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002088090	A	20020327	JP 2000-280005	20000914
JP 3530929	B2	20040524		

PRIORITY APPLN. INFO.: JP 2000-280005 20000914

AB Polyfluoro organosilicon compds. are efficiently prepared in high yields with industrial advantage by direct hydrosilylation of polyfluoroolefins with hydrosilanes in the presence of a transition metal complex of polyfluorophosphine ligands using supercrit. or liquefied carbon dioxide as the solvent. The transition metal complexes are Ru, Rh, Ir, Ni, Pd, or Pt complexes. These organosilicon compds. are useful as silane coupling agents having perfluoroalkyl groups. Thus, 5 mg dichlorotris(tri-p-trifluoromethylphenylphosphine)ruthenium, 0.35 g 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-1-octene, and 0.22 g dimethoxymethylsilane were placed in a 20 mL stainless steel autoclave at room temperature, charged with CO₂ at 60 kg/cm², and heated at 90° and inner pressure of 300 atm for 24 h to give organosilicon compds. consisting of 98% CF₃(CF₂)₅CH₂CH₂Si(OMe)₂Me and 2% CF₃(CF₂)₅CHMeSi(OMe)₂Me in 74% yields.

RX(1) OF 3 2 A + 2 B ==> C + D

RX(1) RCT A 25291-17-2, B 16881-77-9
 PRO C 85857-17-6, D 339286-25-8
 SOL 124-38-9 CO₂
 NTE hydrosilylation under high-pressure at 90° for 24 h using
 supercrit. carbon dioxide as solvent

L135 ANSWER 3 OF 66 CASREACT COPYRIGHT 2007 ACS on STN DUPLICATE 4

ACCESSION NUMBER:

134:101007 CASREACT Full-text

TITLE:

Bimetallic platinum catalysts for
hydrosilations

INVENTOR(S):

Chen, Wei; Dinh, Paul Charles; Tzou, Ming-Shin

PATENT ASSIGNEE(S):

Dow Corning Corporation, USA

SOURCE:

U.S., 8 pp.

CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6177585	B1	20010123	US 2000-575860	20000519
EP 1164137	A1	20011219	EP 2001-304267	20010514
EP 1164137	B1	20030806		

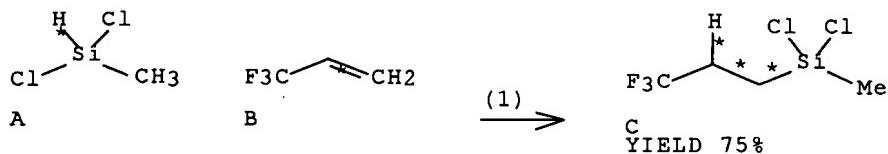
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO

JP 2002020391 A 20020123 JP 2001-146523 20010516

PRIORITY APPLN. INFO.: US 2000-575860 20000519

OTHER SOURCE(S): MARPAT 134:101007

AB A hydrosilation processing a silicon hydride with an unsatd. reactant in the presence of a supported bimetallic catalyst comprising an active hydrosilating metal such as platinum in elemental or compound form, and a surface segregating metal such as copper in elemental or compound form on a support. Thus, 87% conversion was obtained in Pt /Cu/C catalyzed hydrosilylation of allyl chloride with HSiCl₃ at 120°.

RX(1) OF 1 A + B ==> CRX(1) RCT A 75-54-7, B 677-21-4PRO C 675-62-7

CAT 7440-50-8 Cu, 7440-06-4 Pt

NTE bimetallic catalyst supported on carbon claimed and process for making it claimed; continuous stirred-tank reactor used; extensive set of alkene - halosilane reactions also described and claimed, regioselective

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 4 OF 66 CASREACT COPYRIGHT 2007 ACS on STN DUPLICATE 5

ACCESSION NUMBER: 134:147705 CASREACT Full-text

TITLE: Preparation of fluorine-containing organic silicon compounds

INVENTOR(S): Tonomura, Yoichi; Kubota, Toru; Endo, Mikio

PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

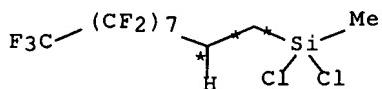
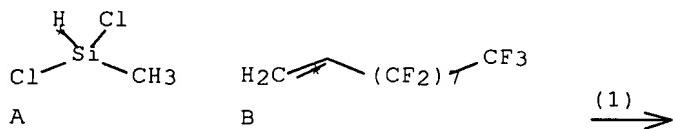
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001031684	A	20010206	JP 1999-200344	19990714
PRIORITY APPLN. INFO.:			JP 1999-200344	19990714
OTHER SOURCE(S):	MARPAT 134:147705			
AB	The compds. CF ₃ (CF ₂) _n CH ₂ CH ₂ SiMe _a Cl _b (n = 3-9; a = 0-1; b = 2-3; a + b = 3) are prepared by reaction of CF ₃ (CF ₂) _n CH:CH ₂ (n = 3-9) with HSiMe _a Cl _b (a, b = same as above) in the presence of Pt catalysts in ≥1 sort of aliphatic hydrocarbon solvents. 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10- Heptadecafluorodecene was reacted with methyldichlorosilane in the presence of chloroplatinic acid in isoctane at 80° for 4 h to give 88.4% 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10- heptadecafluorodecylmethyldichlorosilane.			

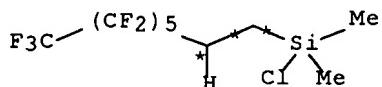
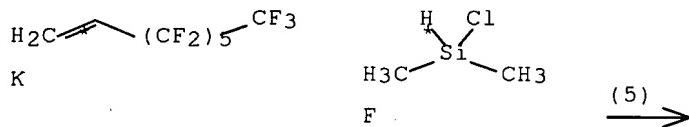
RX(1) OF 2 A + B ==> C



C YIELD 88%

RX(1) RCT A 75-54-7, B 21652-58-4
PRO C 3102-79-2
CAT 16941-12-1 H2PtC16
SOL 540-84-1 Isooctane

L135 ANSWER 5 OF 66 CASREACT COPYRIGHT 2007 ACS on STM DUPLICATE 6
ACCESSION NUMBER: 135:257287 CASREACT Full-text
TITLE: Recycling of Rhodium-Based Hydrosilylation Catalysts;
A Fluorous Approach
AUTHOR(S): de Wolf, Elwin; Speets, Emiel A.; Deelman, Berth-Jan;
van Koten, Gerard
CORPORATE SOURCE: Debye Institute Department of Metal-Mediated
Synthesis, Utrecht University, Utrecht, NL-3584 CH,
Neth.
SOURCE: Organometallics (2001), 20(17), 3686-3690
CODEN: ORGND7; ISSN: 0276-7333
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The concept of fluorous biphasic separation was applied in the recycling of Rh-based catalysts for the hydrosilylation of 1-alkenes and fluorinated 1-alkenes by following two approaches. Hydrosilylation of 1-hexene using various silanes and fluorous versions of Wilkinson's catalyst [RhCl{P(C₆H₄-SiMe₂Rf)3}3] (1; Rf = CH₂CH₂C₆F₁₃) or [RhCl{P(C₆H₄-SiMe(Rf)2)3}3] (2; Rf = CH₂CH₂C₈F₁₇) in fluorous biphasic solvent systems afforded the corresponding n-hexylsilanes in high yield. The catalyst activities were similar to those obtained using conventional [RhCl(PPh₃)3]. The fluorous phase containing the catalyst was recycled at least twice without noticeable loss of activity, despite the fact that 12 and 1.7% of [Rh] was lost for 1 and 2, resp., in the 1st cycle. The fluorous hydride intermediate [Rh(H)(Cl)(SiCl₃){P(C₆H₄-SiMe₂Rf)3}2] (3; Rf = CH₂CH₂C₆F₁₃) was identified by NMR spectroscopy. In a reverse approach, the original Wilkinson's catalyst was used for the hydrosilylation of 1H,1H,2H-perfluoro-1-alkenes RCH:CH₂ (R = C₆H₁₃, C₈F₁₇, C₁₀F₂₁) in benzene or toluene as solvent. Fluorous extraction of the products enabled recycling of the nonfluorous catalyst.

RX(5) OF 10 K + F ==> L

L YIELD 79%

RX(5) RCT K 25291-17-2, F 1066-35-9

PRO L 102488-47-1

CAT 14694-95-2 RhCl(PPh₃)₃

SOL 71-43-2 Benzene

NTE regioselective, reflux, 15 h

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 6 OF 66 CASREACT COPYRIGHT 2007 ACS on STN DUPLICATE 7

ACCESSION NUMBER: 131:88046 CASREACT Full-text

TITLE: Preparation of fluorine-containing chloro silane by catalytic hydrosilylation of 2-(perfluoroalkyl)ethylene in the presence of platinum-complex

INVENTOR(S): Tanaka, Akira; Yamamoto, Yuichi; Tsuchiya, Katsuyoshi

PATENT ASSIGNEE(S): Chisso Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

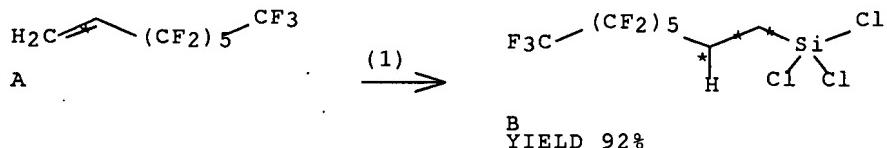
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11189597	A	19990713	JP 1997-367036	19971225
PRIORITY APPLN. INFO.:			JP 1997-367036	19971225

OTHER SOURCE(S): MARPAT 131:88046

AB 2-(Perfluoroalkyl)ethylchlorosilane derivs. represented by formula $\text{F}(\text{CF}_2)_n\text{CH}_2\text{CH}_2\text{SiClm(R1)}_3-m$ ($\text{R1} = \text{Me, Et, Pr, Bu}; m = 1-3; n = 1-15$) are prepared by catalytic hydrosilylation of 2-(perfluoroalkyl)ethylene represented by formula $\text{F}(\text{CF}_2)_n\text{CH}_2$ ($n = \text{same as above}$) with chlorosilanes represented by formula HSiClm(R1)_3-m ($\text{R1, m = same as above}$) in the presence of a Pt-cong. compound, wherein platinum compds. represented by formula $\text{PtO}(\text{R}_2\text{R}_3\text{SiO})_q$ ($\text{R2} = \text{Me, Et}; \text{R3} = \text{vinyl}; q = 3-8$), in particular Pt-cyclovinylmethyldisiloxane complex [PtO[CH₂:CHSiMeO]4] are used as the catalyst.

The use of the above platinum complex allows this hydrosilylation to efficiently proceed in high yields under very mild conditions. 2-(Perfluoroalkyl)ethylchlorosilane derivs. are useful as raw materials for coating materials having water-repellent and antifouling properties and durability. Thus, 350.8 g $F(CF_2)_6CH:CH_2$ was placed in a 500 mL flask fitted with a condenser, a magnetic stirrer, and a dropping funnel and heated to 100° in an oil bath, followed by adding a part (10 mL) of 102 mL $HSiCl_3$ from the dropping funnel and then 75 μL PtO [$CH_2:CHSiMeO$]4 while the rise of the inner temperature by 10° being observed and the course of the reaction being monitored by gas chromatog. After the reaction temperature was adjusted to 100°, the rest of $HSiCl_3$ was added over 3 h while adding 3 + 25 μL PtO [$CH_2:CHSiMeO$]4 in three portions and the reaction mixture was aged for 3 h to give 92% $F(CF_2)_6CH_2CH_2SiCl_3$.

RX(1) OF 3 A ==> B



RX(1) RCT A 25291-17-2
RGT C 10025-78-2 HSiCl₃
PRO B 78560-45-9
CAT 226921-58-0 Platinum, (η 4-2,4,6,8-tetraethenyl-2,4,6,8-tetramethylcyclotetrasiloxane)-
NTE 100° for 6 h

L135 ANSWER 7 OF 66 CASREACT COPYRIGHT 2007 ACS on STN DUPLICATE 8
ACCESSION NUMBER: 124:87354 CASREACT Full-text
TITLE: Optimized preparation of inert fluorinated silanes via
hydride-functional silane intermediates
INVENTOR(S): Boutevin, Bernard; Guida-Pietrasanta, Francine;
Ratsimiehet, Amedee; Caporiccio, Gerardo
PATENT ASSIGNEE(S): Dow Corning Corporation, USA
SOURCE: U.S., 11 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5453528	A	19950926	US 1994-343322	19941121
FR 2720744	A1	19951208	FR 1994-6677	19940601
CA 2150308	A1	19951202	CA 1995-2150308	19950526
EP 685482	A1	19951206	EP 1995-303641	19950530
R: DE, FR, GB				
JP 07330780	A	19951219	JP 1995-135258	19950601

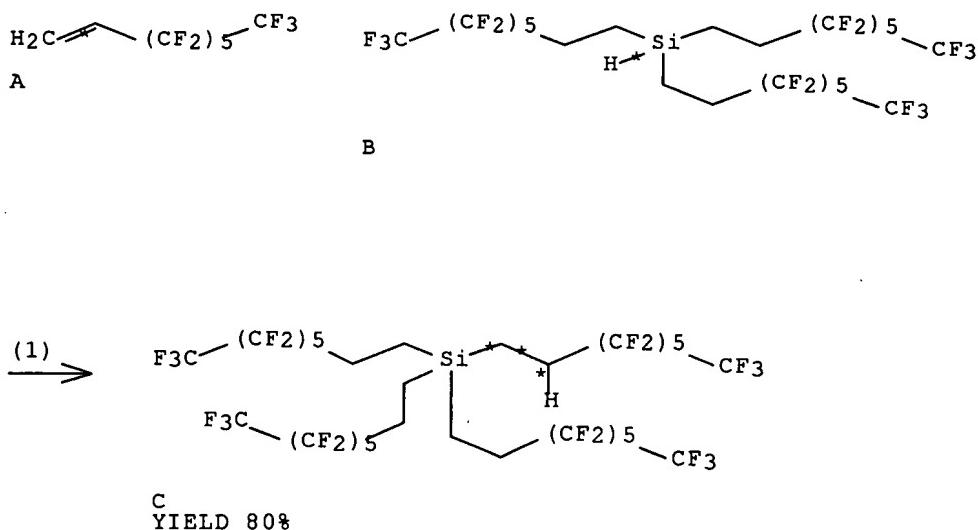
PRIORITY APPLN. INFO.:

FR 1994-6677

19940601

AB The present invention relates to an improved method for preparing fluorinated silanes R14Si (I) or R23Si(R3SiR42)zR3SiR23 (II), said method comprising reacting the corresponding halide-functional or alkoxy-functional silane with LiAlH₄ or NaBH₄ to form a hydride-functional silane and then reacting the latter with a vinyl-terminated fluorotelomer or an allyl-terminated fluorotelomer, wherein at least three R1 of I, at least two of the R2 and at least one R4 of II are selected from derivs. of fluorotelomers or fluorocotelomers, z has an average value of 0 to 4 and R3 is a derivative of an alkylene-terminated telechelic divalent telomer or cotelomer. For example, the key step in the preparation of (C₂F₅(C₂F₄)₂C₂H₄)₄Si involved reacting (C₆F₁₃C₂H₄)₃SiF (80 parts) with LiAlH₄ (2.8 parts) in Et₂O to give 95% (C₆F₁₃C₂H₄)₃SiH, which (64 parts) was then reacted with 25 parts C₆F₁₃CH:CH₂ in the presence of 0.3 mL 10% chloroplatinic acid and O₂ in iPrOH at 110° for 18 h to give 80% (C₂F₅(C₂F₄)₂C₂H₄)₄Si; attempts at direct conversion of (C₆F₁₃C₂H₄)₃SiF to (C₂F₅(C₂F₄)₂C₂H₄)₄Si gave much lower yields. Some of the products have glass transition temps. and other properties that make them suitable for use as a lubricant for electromech. applications, coolant for electronics, hydraulic fluid for aeronautics, base fluid for greases, etc.

RX(1) OF 18 . . . A + B ==> C



RX(1) RCT A 25291-17-2, B 147701-73-3
RGT D 7782-44-7 O2
PRO C 147701-74-4
CAT 16941-12-1 H2PtCl6
SOL 67-63-0 Me2CHOH

L135 ANSWER 8 OF 66 CASREACT COPYRIGHT 2007 ACS on STN DUPLICATE 9
ACCESSION NUMBER: 123:228510 CASREACT Full-text

TITLE: Preparation of allyl(alkyl)silanes by hydrosilylation
of alkenes with allyldichlorosilane or
allyldimethoxysilane

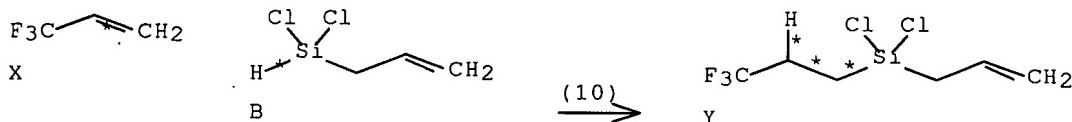
INVENTOR(S): Jung, Il N.; Yoo, Bok R.; Lee, Bong W.; Suk, Mi-yeon
 PATENT ASSIGNEE(S): Korea Institute of Science and Technology, S. Korea
 SOURCE: U.S., 5 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5420323	A	19950530	US 1994-302429	19940908
KR 141464	B1	19980701	KR 1993-26069	19931201
JP 07206872	A	19950808	JP 1993-327086	19931224

PRIORITY APPLN. INFO.:

OTHER SOURCE(S): MARPAT 123:228510

AB Title compds. $\text{CH}_2:\text{CHCH}_2\text{SiX}_2\text{CH}_2\text{CH}_2\text{R}$ [X = Cl, C1-4 alkoxy; R = Ph, CH_2Cl , CnH_2nMe ($n = 0-15$), SiMemCl_{3-m} ($m = 0-3$), CF_3 , CH_2CF_3 , CN, CH_2CN , glycidyloxyethyl, $\text{CH}_2\text{SiMemCl}_{3-m}$ ($m = 0-3$), $\text{SiMem(OR}_1\text{)}_{3-m}$ ($m = 0-3$; $\text{R}_1 = \text{Me}$, Et), $\text{CH}_2\text{SiMem(OR}_1\text{)}_{3-m}$ ($m = 0-3$; same R_1), PhCH_2Cl [sic], cyclohexenyl] are claimed. The title compds. are prepared by hydrosilylation of $\text{CH}_2:\text{CHCH}_2\text{SiX}_2\text{H}$ (same X) with $\text{CH}_2:\text{CHR}$ (same R) in presence of a catalyst, chosen from chloroplatinic acid, Pt on silica, tributylamine, and inorg. compds. of Pd, Rh, or Ni. In an example, reaction of vinylidimethylchlorosilane 0.21 mol with allyldichlorosilane 0.07 mol and 50 μL of 1% chloroplatinic acid in iPrOH at 80° for 30 min gave 89% 7-methyl-4,4,7-trichloro-4,7-disila-1-octene.

RX(10) OF 39 X + B ==> YRX(10) RCT X 677-21-4

STAGE (1)
 CAT 16941-12-1 H₂PtCl₆
 SOL 67-63-0 Me₂CHOH

STAGE (2)
 RCT B 3937-28-8

PRO Y 867-37-8

L135 ANSWER 9 OF 66 CASREACT COPYRIGHT 2007 ACS on STN DUPLICATE 10
 ACCESSION NUMBER: 122:187656 CASREACT Full-text
 TITLE: Hydrosilylation of 1-alkenes with dichlorosilane
 AUTHOR(S): Out, Gerardus J. J.; Klok, Harm-Anton; Schwegler,
 Leonore; Frey, Holger; Moeller, Martin
 CORPORATE SOURCE: Dep. Chem. Technology, Univ. Twente, Enschede, 7500

AE, Neth.

Macromolecular Chemistry and Physics (1995),
196(1), 185-94

CODEN: MCHPES ISSN: 1022-1352

PUBLISHER:

**HUEBEN, HOMES,
Huethig & Wepf**

DOCUMENT TYPE:

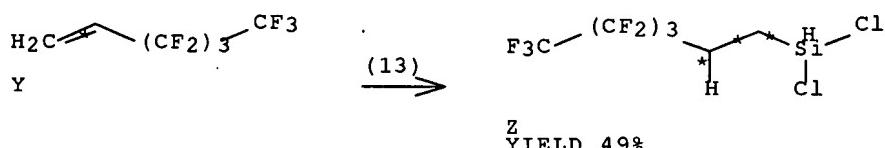
Writing Journal

**DOCUMENT
LANGUAGE.**

Social English

AB Sym. and unsym. substituted diorganodichlorosilanes have been prepared by hydrosilylation with dichlorosilane using two different Pt catalysts, i.e., hexachloroplatinic acid (Speier's catalyst) and a Pt cyclovinylmethylsiloxane complex. Hydrosilylation of unsubstituted 1-alkenes proved to be very efficient, yielding anti-Markovnikov substituted di-n-alkyldichlorosilanes. However, no reaction was observed when electron-deficient 1-alkenes were used. Octacarbonyldicobalt enabled formation of the monoadduct of 1H,1H,2H-perfluoro-1-hexene with dichlorosilane, which was employed in a 2nd hydrosilylation of the olefin. Thus, the anti-Markovnikov diadduct was obtained in 40% overall yield. The two-step synthesis also was applied successfully to obtain unsym. substituted diorganodichlorosilanes containing nitrile and ether groups.

RX(13) OF 15 Y ==> Z



RX(13) RCT Y 19430-93-4

STAGE(1)
RGT AA 10210-68-1 Co2 (CO) 8

STAGE(2)
RGT D 4109-96-0 SiH₂Cl₂

PRO Z 161582-94-1
NTE REGIOSELECTIVE

L135 ANSWER 10 OF 66 CASREACT COPYRIGHT 2007 ACS on STN DUPLICATE 11
ACCESSION NUMBER: 121:157727 CASREACT Full-text

TITLE: Study on the alkylation of chlorosilanes. Part II.

Synthesis of (fluoroalkyl)chlorosilanes and tetrakis(fluoroalkyl)silanes via hydrosilylation
Boutevin, B.; Guida-Pietrasanta, F.; Ratsimihety, Caporiccio, G.

AUTHOR(S) :

Caporiccio, G.

CORPORATE SOURCE:

URA D-11930 CNRS-ENSCM, 8 rue Ecole Normale,
Montpellier-, 34053, Fr.

SOURCE:

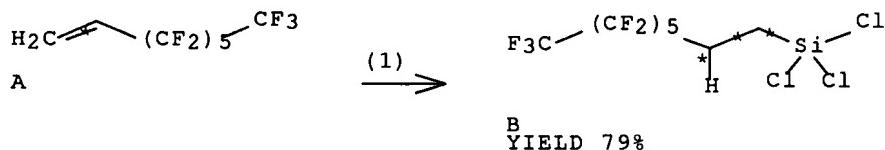
Journal of Fluorine Chemistry (1994), 68(1),
71-7

CODEN: JFLCAR; ISSN: 0022-1139

LANGUAGE:

English

AB The hydrosilylation of various fluorinated olefins and of a diene with different chlorosilanes and with a tris(fluoroalkyl)silane, in the presence of a peroxide or a Pt catalyst, is reported. The reactivity is influenced considerably by the structure of the silane and of the fluorinated olefin. The following (fluoroalkyl)chlorosilanes and (fluoroalkyl)- α,ω -chlorodisilanes are described; C₆F₁₃(CH₂)_nSiR₁R₂Cl where n = 2 or 3 and (ClR₁R₂SiC₂H₄C₃F₆)₂ with R₁ = R₂ = Cl, R₁ = Cl and R₂ = Me or C₂H₄CF₃, R₁ = R₂ = Me and R₁ = Me and R₂ = Ph. Three new tetra(fluoroalkyl)silanes also were synthesized. All the products were characterized by ¹H, ¹⁹F and ²⁹Si NMR spectroscopy.

RX(1) OF 1 A ==> B

RX(1) RCT A 25291-17-2
 RGT C 10025-78-2 HSiCl₃
 PRO B 78560-45-9
 CAT 16941-12-1 H₂PtCl₆, 67-63-0 Me₂CHOH

L135 ANSWER 11 OF 66 CASREACT COPYRIGHT 2007 ACS on STN DUPLICATE 12

ACCESSION NUMBER:

119:226037 CASREACT Full-text

TITLE:

Syntheses and reactions of metal organics. XVIII.
Synthesis of (1H,1H,2H,2H-polyfluoroalkyl)trimethoxysilanes and surface modification of a glass plate

AUTHOR(S):

Yoshino, Norio; Yamamoto, Yasushi; Hamano, Katsumi;
Kawase, Tokuzo

CORPORATE SOURCE:

Fac. Eng., Sci. Univ. Tokyo, Tokyo, 162, Japan

SOURCE:

Bulletin of the Chemical Society of Japan (1993), 66(6), 1754-8

CODEN: BCSJA8; ISSN: 0009-2673

DOCUMENT TYPE:

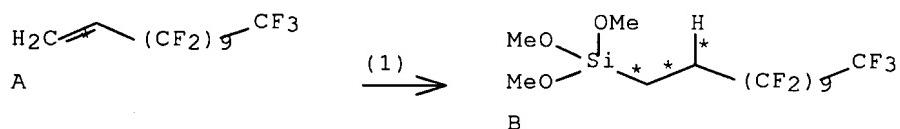
Journal

LANGUAGE:

English

AB Four silane coupling agents, (1H,1H,2H,2H-henicosafuorododecyl)trimethoxy silane, (1H,1H,2H,2H-heptadecafluorododecyl)trimethoxysilane, (1H,1H,2H,2H-tridecafluoroctyl)trimethoxysilane, and (1H,1H,2H,2H-nonafluoroheptyl)trimethoxysilane were prepared by the hydrosilylation of trichlorosilane with the corresponding 1H,1H,2H-polyfluoro-1-alkene in the presence of hydrogen hexachloroplatinate(IV), followed by reaction with sodium methoxide. The surface modification of a glass plate was attempted using these products. From measurements of the contact angles θ ($^{\circ}$) of water and oleic acid against a modified glass plate surface, the coupling agents were found to have high modification ability. The modification produced a glass surface with high oxidation resistance.

RX(1) OF 1 A ==> B



RX (1) RCT A 30389-25-4

STAGE (1)

RGT C 10025-78-2 HSIC13
CAT 16941-12-1 H2PtCl6

STAGE (2)

RGT D 124-41-4 NaOMe
SOL 76-13-1 Freon 113, 67-56-1 MeOH

PRO B 123445-18-1

L135 ANSWER 12 OF 66 CASREACT COPYRIGHT 2007 ACS on STN DUPLICATE 13
ACCESSION NUMBER: 119:28205 CASREACT Full-text

TITLE: 119-26265 CASREKET part two
Syntheses and reactions of metal organo-

TITLE: Syntheses and reactions of metal organics. XVII. Synthesis of silane coupling agents bearing a

Synthesis of silane coupling agents having a fluorocarbon chain and surface modification of glass plates

AUTHOR(S) : Yoshino, Norio; Yamamoto, Yasushi; Seto, Tsuyoshi;

Tominaga, Shinichi; Kawase, Tokuzo

CORPORATE SOURCE: Fac. Eng., Sci. Univ. Tokyo, Tokyo, 162, Japan

SOURCE: Bulletin of the Chemical Society of Japan (

1993), 66(2), 472-6

CODEN: BCSJA8 ISSN: 0009-2673

DOCUMENT TYPE.

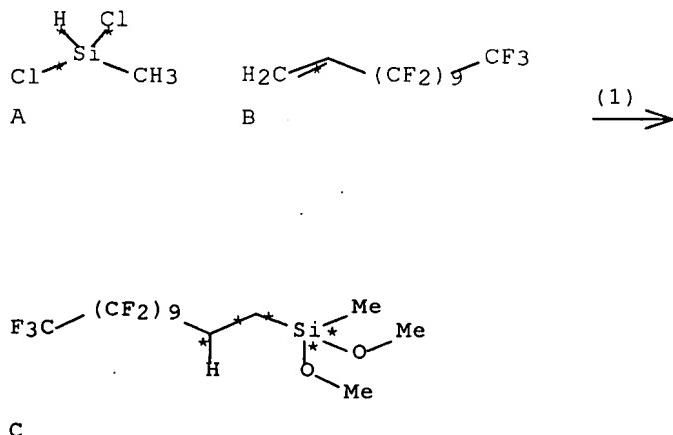
JOURNAL

DOCUMENT LANGUAGE

Southern English

AB Four silane coupling agents, 1H,1H,2H,2H-polyfluoroalkyl(dimethoxy) (methyl)silanes [1H,1H,2H,2H-henicosafluorododecyl(dimethoxy)(methyl)silane, C10F21C2H4Si(CH₃)(OCH₃)₂, 1H,1H,2H,2H-hepta-decafluorodecyl(dimethoxy)(methyl)silane, C8F17C2H4Si(CH₃)(OCH₃)₂, 1H,1H,2H,2H-tridecafluoroctyl(dimethoxy)(methyl)silane, C6F13C2H4Si(CH₃)(OCH₃)₂, and 1H,1H,2H,2H-nonafluorohexyl(dimethoxy)(methyl)silane, C4F9C2H4Si(CH₃)(OCH₃)₂], were prepared by the hydrosilylation of dichloro(methyl)silane with the corresponding 1H,1H,2H-polyfluoro-1-alkene in the presence of hydrogen hexachloroplatinate(IV), followed by the reaction with sodium methoxide. The surface modification of glass plate was attempted using these products. From measurements of the contact angles $\theta(^{\circ})$ of water and oleic acid against a modified glass plate surface, the coupling agents were found to have high modification ability. The oxidation resistance of the modified glass surface was also investigated.

RX(1) OF 1 A + B ==> C

RX(1) RCT A 75-54-7, B 30389-25-4

STAGE (1)

CAT 16941-12-1 H₂PtCl₆
SOL 67-56-1 MeOH

STAGE (2)

RGT D 124-41-4 NaOMe
SOL 76-13-1 Freon 113PRO C 123445-14-7

L135 ANSWER 13 OF 66 CASREACT COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 143:347222 CASREACT Full-text

TITLE: 2- And 3-arylpropyl(ethynyl)dimethylsilanes

AUTHOR(S): Yarosh, O. G.; Zhilitkaya, L. V.; Yarosh, N. K.;
Albanov, A. I.; Voronkov, M. G.CORPORATE SOURCE: Favorskii Irkutsk Institute of Chemistry, Siberian
Branch, Russian Academy of Sciences, Irkutsk, RussiaSOURCE: Russian Journal of General Chemistry (2004),
74(12), 1890-1894

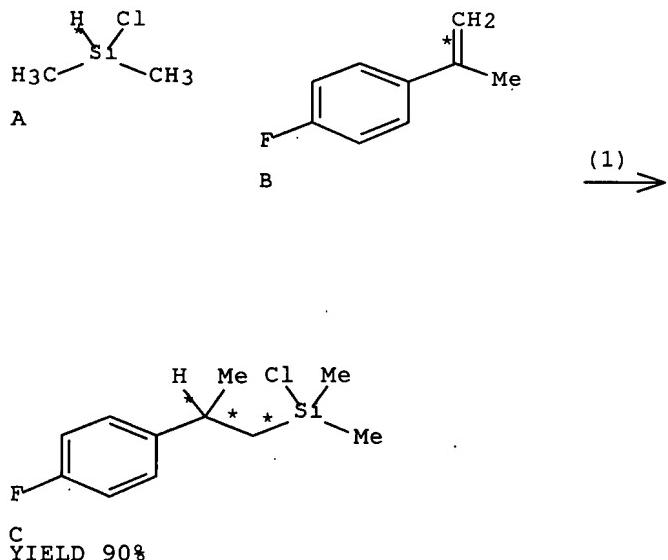
CODEN: RJGCEK; ISSN: 1070-3632

PUBLISHER: MAIK Nauka/Interperiodica Publishing

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Hydrosilylation of ortho- and para-substituted 2-phenylpropenes and ortho-,
meta-, and para-alkoxy substituted 3-phenylpropenes with chlorodimethylsilane
in the presence of H₂PtCl₆ was effected. The resulting adducts were reacted
with ethynylmagnesium bromide to synthesize 2- and 3-
arylpropyl(ethynyl)silanes.RX(1) OF 36 A + B ==> C...



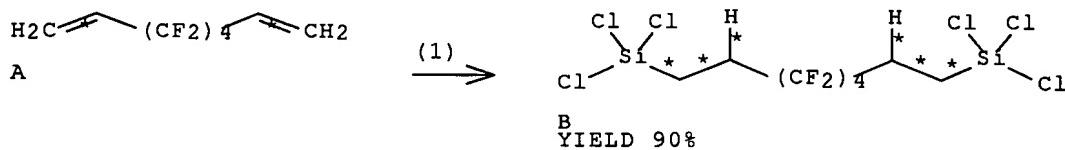
RX(1) RCT A 1066-35-9, B 350-40-3
 PRO C 865718-78-1
 CAT 16941-12-1 H₂PtCl₆
 SOL 67-63-0 Me₂CHOH
 CON 0.5 hours, 90 deg C

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 14 OF 66 CASREACT COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 137:154975 CASREACT Full-text
 TITLE: Synthesis of α,ω -bissilanes with
 fluorocarbon chain and surface structures of solid
 surfaces modified with the silanes
 AUTHOR(S): Kondo, Yukishige; Yamaki, Koichi; Yamauchi, Takashi;
 Azumi, Reiko; Tanaka, Motoo; Matsumoto, Mutsuyoshi;
 Yoshino, Norio
 CORPORATE SOURCE: Department of Industrial Chemistry, Faculty of
 Engineering Institute of Colloid and Interface
 Science, Tokyo University of Science, Tokyo, 162-8601,
 Japan
 SOURCE: Journal of Oleo Science (2002), 51(5),
 305-311
 CODEN: JOSOAP; ISSN: 1345-8957
 PUBLISHER: Japan Oil Chemists' Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB α,ω -Bischlorosilanes, Cl₃SiCH₂CH₂(CF₂)_nCH₂CH₂SiCl₃ [n = 4 (I), 6 (II) or 8 (III)], were synthesized using hydrosilylation reaction with trichlorosilane of the corresponding α,ω -divinylpolyfluoroalkanes, CH₂:CH(CF₂)_nCH:CH₂ (n = 4, 6, or 8), in the presence of hexachloroplatinate (IV) as catalyst at 100°. Two other α,ω -bissilanes, (CH₃O)₃SiCH₂CH₂(CF₂)_nCH₂CH₂Si(OCH₃)₃ [n = 4 (IV), 6 (V), or 8 (VI)], and (OCN)₃SiCH₂CH₂(CF₂)_nCH₂CH₂Si(NCO)₃ [n = 4 (VII), 6 (VIII), or 8 (IX)], were prepared via reactions of α,ω -bischlorosilanes I-III with Na methoxide and Ag cyanate, resp. The structures of Si wafer surfaces modified

with the α,ω -bismethoxysilanes were studied by polarized FTIR spectroscopy. The bismethoxysilanes reacted with Si wafer surface through only one of the reactive groups, $-\text{Si}(\text{OCH}_3)_3$, thereby forming no loop structure on the surface.

RX(1) OF 15 A ==> B...

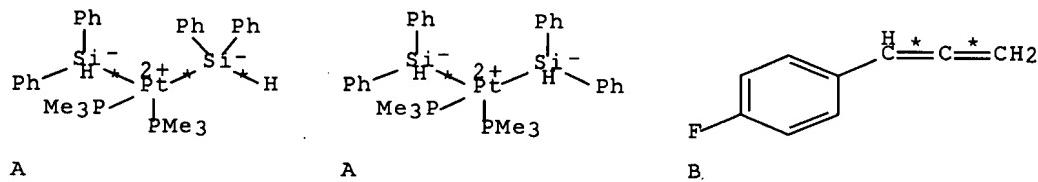


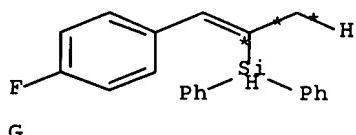
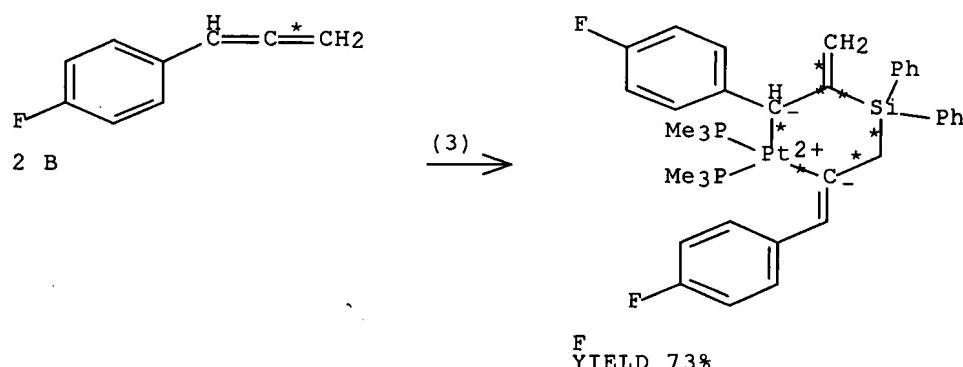
RX(1) RCT A 678-65-9
 RGT C 10025-78-2 HSiCl₃
 PRO B 193622-77-4
 CAT 16941-12-1 H₂PtCl₆
 NTE regioselective

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 15 OF 66 CASREACT COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 136:53866 CASREACT Full-text
 TITLE: Four-, Five-, and Six-Membered
Silaplatinacycles Obtained from the Reaction
 of an Arylallene with Pt(SiHPh₂)₂(PMe₃)₂
 AUTHOR(S): Tanabe, Makoto; Yamazawa, Hideto; Osakada, Kohtaro
 CORPORATE SOURCE: Chemical Resources Laboratory, Tokyo Institute of
 Technology, Midori-ku Yokohama, 226-8503, Japan
 SOURCE: Organometallics (2001), 20(22), 4451-4453
 CODEN: ORGND7; ISSN: 0276-7333
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The reaction of (4-fluorophenyl)allene with Pt(SiHPh₂)₂(PMe₃)₂ gives 2-sila-1-
platinacyclobutane, 2,5-disila-1- platinacyclopentane, or 4-sila-1-
platinacyclohexane, depending on the reaction conditions. All these complexes
 were characterized by x-ray crystallog. and NMR spectroscopy.

RX(3) OF 5 2 A + 3 B ==> F + G





RX (3) RCT A 322478-26-2, B 70090-77-6
 PRO F 377091-98-0, G 377091-99-1

SOL 108-88-3 PhMe

NTE room temp., 16h, product depends upon reaction conditions

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 16 OF 66 CASREACT COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

131:88045 CASREACT Full-text

TITLE:

Preparation of fluorine-containing chloro silane by platinum-complex catalyzed hydrosilylation of 2-(perfluoroalkyl)ethylene using chlorosilane solvent

INVENTOR(S):

Tanaka, Susumu; Tsuchiya, Katsuyoshi

PATENT ASSIGNEE(S):

Chisso Corp., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

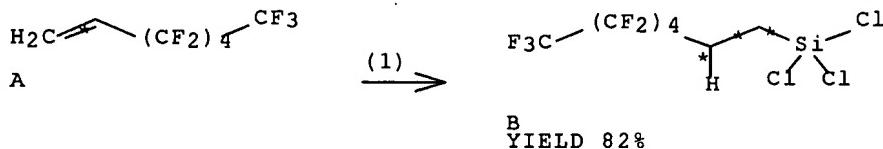
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11189598	A	19990713	JP 1997-367037	19971225
PRIORITY APPLN. INFO.:				
OTHER SOURCE(S):	MARPAT 131:88045			

AB 2-(Perfluoroalkyl)ethylchlorosilane derivs. represented by formula F(CF₂)_nCH₂CH₂SiCl_m(R₁)_{3-m} (R₁ = Me, Et, Pr, Bu; m = 1-3; n = 1-15) are prepared by catalytic hydrosilylation of 2-(perfluoroalkyl)ethylene represented by formula F(CF₂)_nCH=CH₂ (n = same as above) with chlorosilanes represented by formula HSiCl_m(R₁)_{3-m} (R₁, m = same as above) in the presence of a Pt-cong. compound, in particular Pt-cyclovinylmethylsiloxane complex [PtO[CH₂:CHSiMeO]4], wherein chlorosilane compds. represented by formula (R₃)_a(R₄)_b(R₅)_cSiCl_{4-(a+b+c)} are used as solvent. The use of chlorosilane solvent enables this hydrosilylation to efficiently proceed in high yields for fluoroolefins of relatively low mol. weight under very mild conditions and normal pressure. 2-(Perfluoroalkyl)ethylchlorosilane derivs. are useful as raw materials for coating materials having water-repellent and antifouling properties and durability. Thus, a mixture of 134.2 g F(CF₂)₄CH=CH₂ and 55 mL HSiCl₃ was added dropwise to 125 mL ethylchlorosilane containing 100 μL PtO[CH₂:CHSiMeO]4 over 2 h and the resulting mixture was aged for 2 h to give 82% F(CF₂)₄CH₂CH₂SiCl₃.

RX(1) OF 1 A ==> B



RX(1) RCT A 84100-13-0
 RGT C 10025-78-2 HSiCl₃
 PRO B 229499-00-7
 CAT 226921-58-0 Platinum, (η^4 -2,4,6,8-tetraethenyl-2,4,6,8-tetramethylcyclotetrasiloxane)-
 SOL 115-21-9 Silane, trichloroethyl-
 NTE reflux for 4 h; the use of ethylchlorosilane as solvent enables
 hydrosilylation to efficiently proceed under mild condition.

L135 ANSWER 17 OF 66 CASREACT COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 127:34359 CASREACT Full-text

TITLE: Preparation of fluorine-containing organosilicon compounds

INVENTOR(S): Aoki, Takanori; Ishimura, Yoshimasa

PATENT ASSIGNEE(S): Showa Denko K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09124663	A	19970513	JP 1995-282005	19951030

JP 3774917

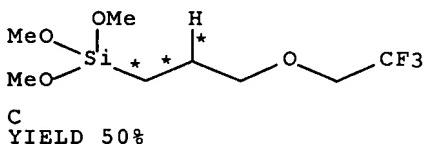
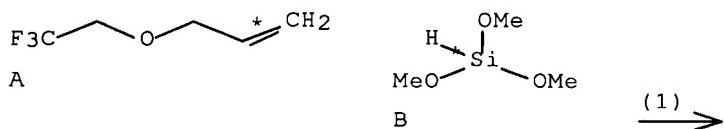
B2 20060517

JP 1995-282005 19951030

PRIORITY APPLN. INFO.:

MARPAT 127:34359

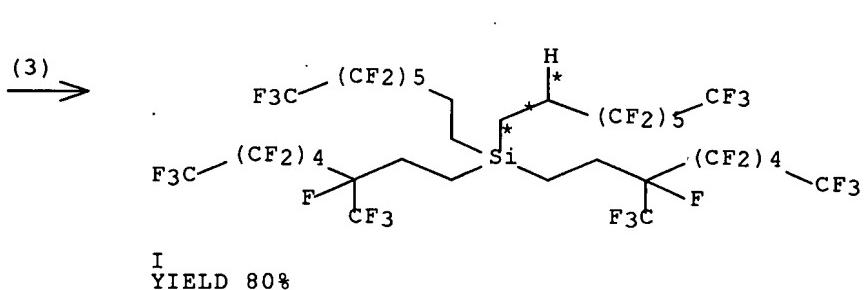
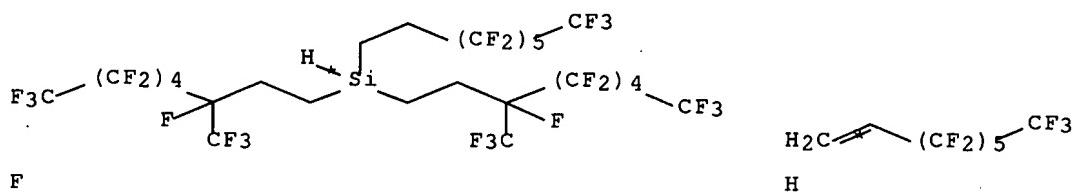
OTHER SOURCE(S):
AB The title compds. F₃CCH₂O(CH₂)₃Si(OR)₃ (I; R = Me, Et) are prepared I are useful as rubber-surface lubricants, stain-proofing, water-proofing, oil-proofing agents. Thus, F₃CCH₂OCH₂CH:CH₂ was reacted with (MeO)₃SiH in the presence of H₂(**PtCl₆**) to give 49.9% I (R = Me), which was tested and showed good properties of stain-proofing, water-proofing, oil-proofing, and rubber-surface lubricanting.

RX(1) OF 1 A + B ==> C

RX(1) RCT A 1524-54-5, B 2487-90-3
 PRO C 189759-28-2
 CAT 16941-12-1 H₂PtCl₆
 SOL 67-63-0 Me₂CHOH
 NTE 80° for 5 h

L135 ANSWER 18 OF 66 CASREACT COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 124:146257 CASREACT Full-text
 TITLE: Study of the alkylation of chlorosilanes. Part IV.
 Influence of the introduction of branched chains on
 the synthesis and properties of tetra(fluoroalkyl)
 silanes and α,ω -fluoroalkylene disilanes
 AUTHOR(S): Boutevin, B.; Guida-Pietrasanta, F.; Ratsimihety, A.;
 Caporiccio, G.
 CORPORATE SOURCE: URA D1193, CNRS, Ecole Nationale Supérieure de Chimie
 de Montpellier, Montpellier, 34053/1, Fr.
 SOURCE: Journal of Fluorine Chemistry (1995), 75(1),
 75-81
 CODEN: JFLCAR; ISSN: 0022-1139
 PUBLISHER: Elsevier Sequoia
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB The synthesis and structural characterization of new tetra(fluoroalkyl)silanes, R₁SiR₂R₃R₄ [R₁₋₄ = (CH₂)_nRF, n = 2 or 3, RF is a perfluorinated chain, linear or branched], e.g., SiR₁R₂ [R₁ = C₅H₁₁CF(CF₃)C₂H₄, R₂ = C₂H₄C₆F₁₃ (1)], and α,ω -fluoroalkylene disilanes, R₁R₂R₃SiR'SiR₁R₂R₃ [R₁₋₃ = Me, -(CH₂)_nRF and R' = -(CH₂)_nR'F(CH₂)_n], e.g., RSiCH₃(C₂H₄CF₃)C₂H₄C₆F₁₂C₂H₄SiCH₃(C₂H₄CF₃)R (2; R = C₂H₄C₆F₁₃), are reported. E.g., 1 is prepared in 3 steps starting from the initial alkylation of R₂SiF₃ by R₁MgI to give R₁2SiR₂F followed by LiAlH₄-reduction to give R₁2SiR₂H which effects hydrosilylation of C₅H₁₁CF(CF₃)CH:CH₂ in the presence of **H₂PtCl₆** catalyst. The thermal properties of these new compds. together with those of all the silanes and disilanes previously prepared were studied by DSC. Their refractive indexes are also given.



RX(3) RCT F 172412-13-4, H 25291-17-2
 PRO I 173543-63-0
 CAT 16941-12-1 H₂PtCl₆
 SOL 67-63-0 Me₂CHOH

L135 ANSWER 19 OF 66 CASREACT COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 121:57693 CASREACT Full-text
 TITLE: Single component inorganic/organic network materials
 and precursors thereof
 INVENTOR(S): Michalczky, Michael Joseph; Sharp, Kenneth George
 PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co., USA
 SOURCE: PCT Int. Appl., 76 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English

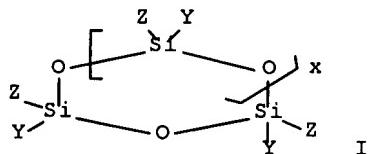
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9406807	A1	19940331	WO 1993-US8685	19930915
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5378790	A	19950103	US 1993-120995	19930913
EP 660839	A1	19950705	EP 1993-921578	19930915
EP 660839	B1	20001122		
EP 660839	B2	20060208		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
JP 08505363	T	19960611	JP 1993-508262	19930915
AT 197713	T	20001215	AT 1993-921578	19930915
CA 2144639	C	20020723	CA 1993-2144639	19930915
PRIORITY APPLN. INFO.:			US 1992-945777	19920916
			US 1993-120995	19930913
			WO 1993-US8685	19930915

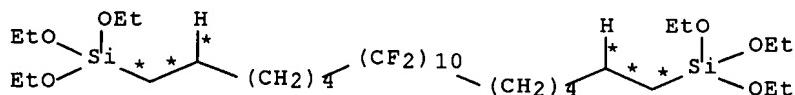
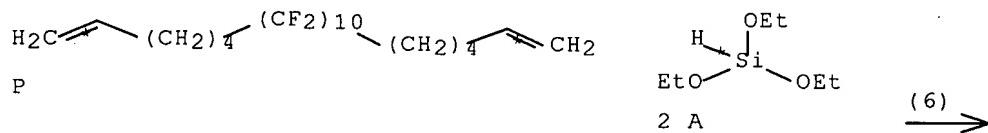
OTHER SOURCE(S): MARPAT 121:57693

GI



AB Single component inorg./organic network materials incorporating the phys. properties of glasses with the flexibility of organic materials of empirical formula $X(\text{SiO}1.5)n$ [$n \geq 2$; X = one or more flexible organic linkages, e.g., $\text{R}_1\text{mSiY}_4-\text{m}$, $\text{Y}(\text{CF}_2)_p\text{Y}$, ring structures I; x = 1-3; Z = C1-4 alkyl, 3,3,3-trifluoropropyl, aralkyl, aryl; Y = $(\text{CR}_2\text{R}_3)_k\text{CR}_4\text{R}_5\text{CR}_6\text{R}_7(\text{CR}_8\text{R}_9)_h-$; R1 = C1-8 alkyl, aryl; R2-R9 = H, C1-8 alkyl, aryl, provided that at least one of R4-R7 = H; m = 0-2; k and h are independently 0-10, provided that at least one of k or h = 0; p = an even integer from 4-10] as well as precursors thereof, are disclosed. These compds. are useful as intermediates in one-component room-temperature-curing sealant, adhesive and coating applications among other silicone polymer applications. For example, treating $(\text{EtO})_3\text{Si}(\text{CH}_2)_6(\text{CF}_2)_{10}(\text{CH}_2)_6\text{Si}(\text{OEt})_3$, prepared in 86% yield from 5.00 g $[\text{CH}_2:\text{CH}(\text{CH}_2)_4(\text{CF}_2)_5]^2$, 5.55 g $(\text{EtO})_3\text{SiH}$, and 10 drops Pt catalyst in 20 mL PhMe, with 96% HCO_2H in THF gave a clear yellow gel that dried into a clear yellow glassy disk which, after silylation with bis(trimethylsilyl)acetamide, had a surface energy of 15.2 mN/m, substantially less than that for Teflon.

RX(6) OF 7 P + 2 A ==> Q



YIELD 86%

RX (6) RCT P 155881-97-3, A 998-30-1
 PRO Q 155881-94-0
 CAT 7440-06-4 Pt
 SOL 108-88-3 PhMe

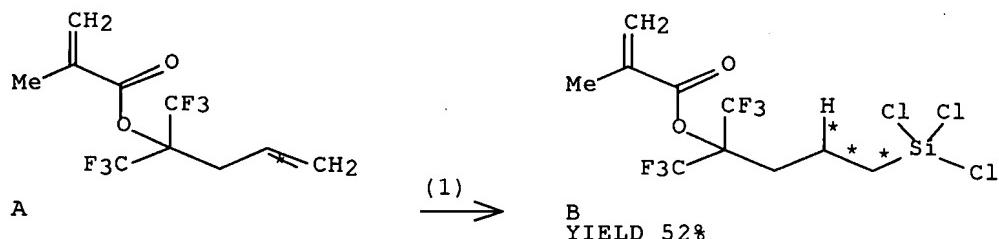
L135 ANSWER 20 OF 66 CASREACT COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 119:226192 CASREACT Full-text
 TITLE: Fluorine-containing silylalkyl propenoates and process
 of producing the same
 INVENTOR(S): Inomata, Hiroshi; Tarumi, Yasuo; Yamaguchi, Hiromasa;
 Fukuda, Kenichi; Munezawa, Kazutoshi
 PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 9 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 558348	A1	19930901	EP 1993-301500	19930226
EP 558348	B1	19970423		
R: DE, FR, GB				
JP 05239072	A	19930917	JP 1992-78499	19920228
JP 2701103	B2	19980121		
US 5288890	A	19940222	US 1993-24371	19930301
			JP 1992-78499	19920228

PRIORITY APPLN. INFO.:

MARPAT 119:226192

OTHER SOURCE(S): AB Xn(R1)3-nSiCH₂CH₂(CH₂)mC(CF₃)₂O₂CCR₂:CH₂ (X = a hydrolyzable group; R₁ = monovalent organic group; R₂ = H, Me; n = 1-3; m = 0, 1) useful as coupling agents for laminated sheets of polyester resin and glass and to improve the strength of polyester resin concrete were prepared. Thus, hydrosilylation of CH₂:CHCH₂C(CF₃)₂O₂CCMe:CH₂ with Cl₃SiH in the presence of a 2-ethylhexanol modified complex of H₂PtCl₆ gave 52% Cl₃Si(CH₂)₃C(CF₃)₂O₂CCMe:CH₂ which on treatment with MeOH and urea gave 80.4% (MeO)₃Si(CH₂)₃C(CF₃)₂O₂CCMe:CH₂.

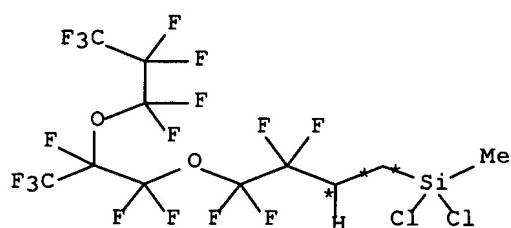
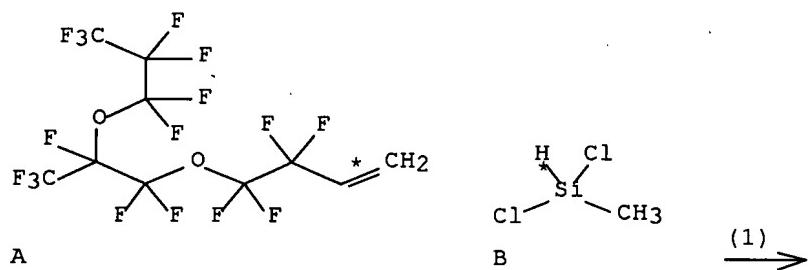
RX(1) OF 1 A ==> B

RX(1) RCT A 150936-82-6
 RGT C 10025-78-2 HSiCl₃
 PRO B 150936-80-4
 CAT 16941-12-1 H₂PtCl₆

L135 ANSWER 21 OF 66 CASREACT COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 119:117518 CASREACT Full-text
 TITLE: Preparation of polyfluoroalkyl ether derivatives of chloroorganosilanes for coatings and as substrate for synthesis of silicones
 INVENTOR(S): Kishita, Hirofumi; Yamaguchi, Kouichi; Suganuma, Shuji
 PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 10 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 538061	A2	19930421	EP 1992-309483	19921016
EP 538061	A3	19940216		
EP 538061	B1	19980318		
R: DE, FR, GB				
JP 05112581	A	19930507	JP 1991-298321	19911017
JP 07078066	B	19950823		
US 5262557	A	19931116	US 1992-961829	19921016
PRIORITY APPLN. INFO.:			JP 1991-298321	19911017
OTHER SOURCE(S):	MARPAT 119:117518			
AB	Title compds. F[CF(CF ₃)CF ₂ O]a(CF ₂)bCH ₂ CH ₂ SiCl _c R(3-c) (R = Cl-8 alkyl, aryl; if two R's, they may be same or different; a = integers 1-7; b = integers 2-8; c = integers 1-3) are prepared by platinum-group metal catalyzed hydrosilylation of a polyfluorinated terminal olefin with chlorohydroorganosilanes. Thus, treatment of MeSiHCl ₂ with CF ₃ CF ₂ CF ₂ OCF(CF ₃)CF ₂ OCF ₂ CF ₂ CH:CH ₂ at 120° in the presence of Pt catalyst for 20 h afforded CF ₃ CF ₂ CF ₂ OCF(CF ₃)CF ₂ OCF ₂ CF ₂ CH ₂ CH ₂ SiMeCl ₂ in 67% yield. These compds. are useful as a surface treating agent for silicones, an adhesive improver for resists, an oil- or water-repellent treating agent, and as a raw material for synthesis of various silicone compds. (no data).			

RX(1) OF 2 **A** + **B** ==> **C**



C YIELD 67%

RX (1) RCT A 149573-00-2, B 75-54-7
PRO C 149538-25-0
CAT 7440-06-4 Pt
NTE autoclave

L135 ANSWER 22 OF 66 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 117:70035 CASREACT Full-text
TITLE: Preparation of (4-ethoxyphenyl)(3-
arylpropyl)dimethylsilanes from hydrosilylation of
allylbenzene derivs. with platinum catalyst
INVENTOR(S): Muramatsu, Toru
PATENT ASSIGNEE(S): Hoechst A.-G., Germany
SOURCE: Ger. Offen., 6 pp.
CODEN: GWXXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4031001	A1	19920402	DE 1990-4031001	19901001
US 5117028	A	19920526	US 1991-766855	19910927
JP 04288087	A	19921013	JP 1991-252058	19910930

EP 479244

A1 19920408

EP 1991-116778 19911001

R: CH, DE, FR, GB, IT, LI, NL

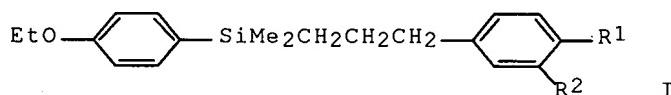
PRIORITY APPLN. INFO.:

DE 1990-4031001 19901001

OTHER SOURCE(S):

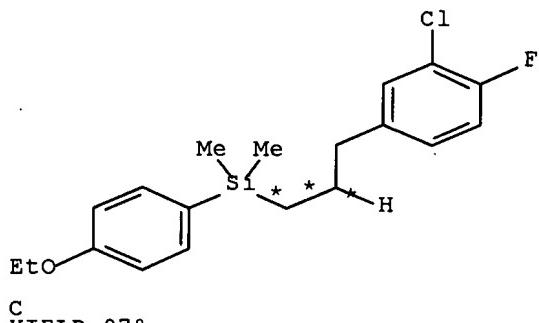
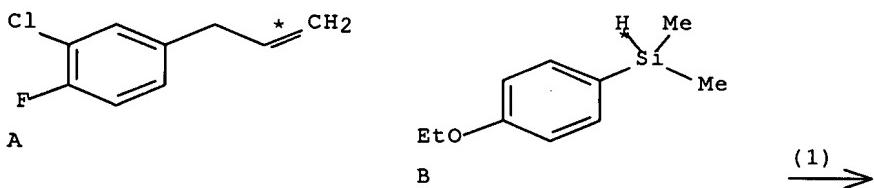
MARPAT 117:70035

GI



AB A process for the preparation of title compds. I (R1 = H, halo, C1-4 alkyl, C1-4 alkoxy; R2 = H, halo, C1-4 alkoxy, (substituted) phenoxy) comprises the treatment of 4-EtOC₆H₄SiMe₂H with CH₂:CHCH₂C₆H₃R1R2 at from 60°-150°. E.g., 51.6 g of 4-fluoro-3-chloroallylbenzene, 1 drop hexachloroplatinic acid-isopropanol solution were treated with 56 g (4-ethoxyphenyl)dimethylsilane at 95° to give (4-ethoxyphenyl)[3-(4-fluoro-3-chlorophenyl)propyl]dimethylsilane in 96% yield.

RX(1) OF 1 A + B ==> C

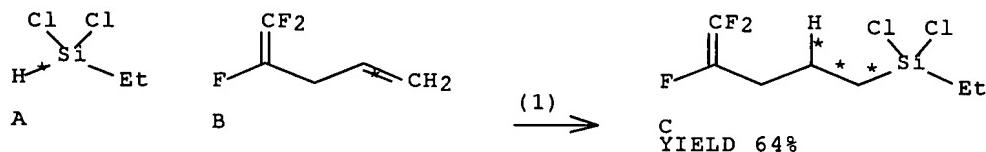


RX(1) RCT A 121626-73-1, B 36875-64-6
 PRO C 121626-74-2
 CAT 16941-12-1 H₂PtCl₆

L135 ANSWER 23 OF 66 CASREACT COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 118:124623 CASREACT Full-text
 TITLE: Hydrosilylation of dienes containing polyfluoroallyl substituents
 AUTHOR(S): Gorbunova, T. L.; Khonina, T. G.; Kodess, M. I.;
 Podol'skii, A. V.; Saloutin, V. I.
 CORPORATE SOURCE: Otd. Tonk. Org. Sint., Inst. Khim., Ufa, Russia
 SOURCE: Metalloorganicheskaya Khimiya (1992), 5(5),
 1001-4
 CODEN: MEKHEX; ISSN: 0235-0114
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian

AB New silylated polyfluoro olefins were produced in the H₂PtCl₆-catalyzed hydrosilylation of the dienes CF₂:CF(CF₂)_nCH₂CH:CH₂ (n = 0, 1) with hydrosilanes EtCl₂SiH, Me(C₅H₁₁)₂SiH and MePh₂SiH. No isomerization of the double bonds took place under the reaction conditions. Thus, treating CF₂:CFCF₂CH₂CH:CH₂ with Et₂SiClH in THF containing H₂PtCl₆ gave 88% CF₂:CFCF₂(CH₂)₃SiEt₂Cl. In the reaction with MePh₂SiH, a byproduct was identified as MePh₂SiF and the duration of the reaction was considerably increased. Addition of Ti(OBu)₄ accelerates hydrosilylation. Possible reaction mechanisms are discussed.

RX(1) OF 4 A + B ==> C



RX(1) RCT A 1789-58-8, B 401-49-0
 PRO C 146348-12-1
 CAT 16941-12-1 H₂PtCl₆
 SOL 109-99-9 THF

L135 ANSWER 24 OF 66 CASREACT COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 114:185743 CASREACT Full-text
 TITLE: Fluorinated carboxylic acid derivatives and their preparation
 INVENTOR(S): Satoh, Shinichi; Koike, Noriyuki; Fujii, Hideki
 PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Japan
 SOURCE: Ger. Offen., 22 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

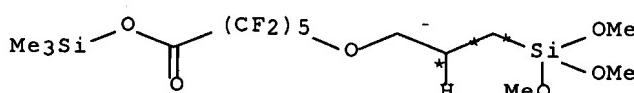
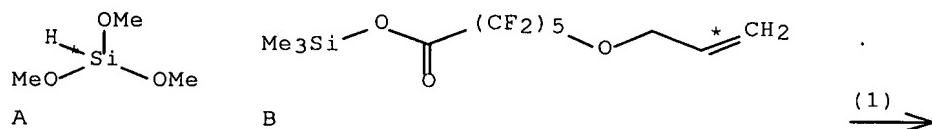
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 4024720	A1	19910207	DE 1990-4024720	19900803
DE 4024720	C2	19991125		
JP 03066695	A	19910322	JP 1989-202115	19890803
JP 07010872	B	19950208		
US 5101057	A	19920331	US 1990-562320	19900803

PRIORITY APPLN. INFO.:

AB The title compds. $(RO)_nSiR13-n(CH_2)3OCF_2ZCO_2X$ (I; R, R₁ = substituted or unsubstituted hydrocarbyl group; Z = divalent perfluoroalkyl or perfluoro polyether group; X = H, SiR₂3; n = 2, 3) were prepared for use as room-temperature vulcanizing agents for organopolysiloxane elastomers, which in turn were tested as metal corrosion inhibitors. I were prepared by hydrosilylation of alkenyl fluorinated carboxylic acid derivs. with $(RO)_nSiR13-nH$ in the presence of a catalyst, preferably H₂PtCl₆. E.g., reaction of 70.0 g CH₂:CHCH₂O(CF₂)₅CO₂SiMe₃ with 24.2 g (MeO)₃SiH in PhMe containing 0.01 g of a 10% aqueous solution of H₂PtCl₆ gave 95% (MeO)₃Si(CH₂)₃O(CF₂)₅CO₂SiMe₃.

RX(1) OF 7 ...A + B ==> C



C YIELD 95%

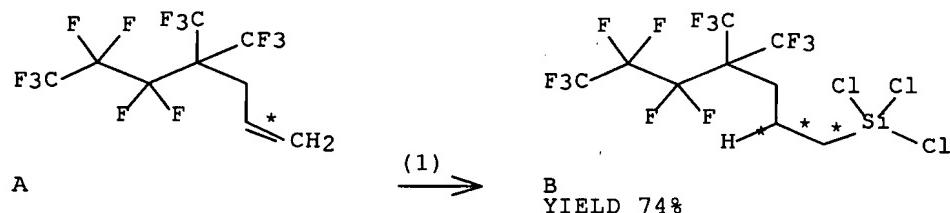
RX(1) RCT A 2487-90-3, B 133304-71-9
PRO C 133304-64-0
CAT 16941-12-1 H2PtCl6
SOL 108-88-3 PhMe

L135 ANSWER 25 OF 66 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 117:34314 CASREACT Full-text
TITLE: Preparation and selectivity characteristics of
fluorocarbonaceous bonded stationary phase for
reverse-phase high-performance liquid chromatography
AUTHOR(S): Konakahara, Takeo; Okada, Shinichiro; Monde, Takashi;
Nakayama, Nobuyuki; Furuhashi, Jun; Sugaya, Junichi
CORPORATE SOURCE: Fac. Sci. Technol., Sci. Univ. Tokyo, Noda, 278, Japan
SOURCE: Nippon Kagaku Kaishi (1991), (12), 1638-46
DOCUMENT TYPE: CODEN: NKAKB8; ISSN: 0369-4577
Journal

LANGUAGE:

Japanese

AB 1H,1H,2H,2H,3H,3H-Tridecafluoro(4,4-dimethylheptyl)silanes (3a-3c) were prepared from the corresponding polyfluoroalkene (1) and silanes HSiXY₂ (2a: X = Y = Cl, 2b: X = Cl, Y = CH₃, 2c: X = Y = OCH₃) in the presence of H₂PtCl₆ in good yields (71-90%). The product silanes (3a, 3b) and dimethyl(1H,1H,2H,2H-tridecafluoroctyl)chlorosilane (4) were used to prepare the corresponding new-type branched- and straight-fluorocarbonaceous bonded stationary phase (PES) for reverse-phase high-performance liquid chromatog. (RP-HPLC). These PFS (polyfluoroalkyl phases were characterized by diffuse reflection FTIR spectra, SEM, silane) combustion anal., N adsorption isotherms, and RP-HPLC. The chromatog. behavior of PFS phases shows an increased selectivity over the octadecyl bonded phase (ODS) for fluoro-, 1,2-difluoro-, 1,2,4-trifluoro-, pentafluoro-, and hexafluorobenzenes, especially for bonded PFS phase showed superior recognition over both the PFS-(4) and ODS phases for 1,3- and 1,4-bis(2,2,2-trifluoro-1-hydroxy-1-trifluoromethylethyl)benzenes. The increases selectivity of PFS for the fluorinated solutes is discussed on the basis of a hydrophobic and/or organophobic interaction between the stationary phase and the solutes.

RX(1) OF 5 A ==> B

RX(1) RCT A 72487-68-4
 RGT C 16941-12-1 H₂PtCl₆, D 10025-78-2 HSiCl₃
 PRO B 130676-80-1

L135 ANSWER 26 OF 66 CASREACT COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 114:207331 CASREACT Full-text

TITLE: Oligosiloxanes with functional groups. XI. Synthesis of sodium α,α,ω -trihydroperfluoroalkoxypropanesulfonate and α,α,ω -trihydroperfluoroalkoxypropoxy siloxanes

AUTHOR(S): Sonnek, Georg; Rabe, Christiane; Schmaucks, Gerd; Kaden, Reinfried; Lehms, Ingeburg

CORPORATE SOURCE: Zentralinst. Org. Chem., Akad. Wiss. DDR, Berlin, 0-1199, Germany

SOURCE: Journal of Organometallic Chemistry (1991), 405(2), 179-82

CODEN: JORCAI; ISSN: 0022-328X

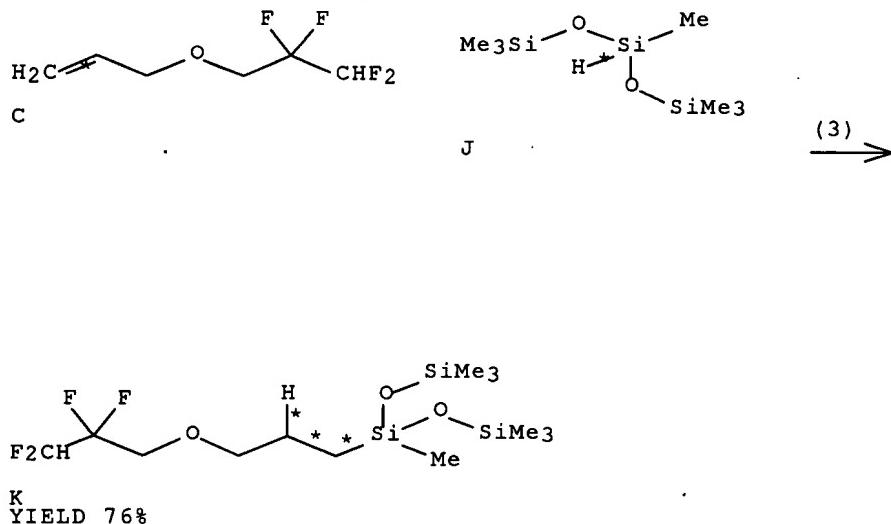
DOCUMENT TYPE: Journal

LANGUAGE: German

AB Several α,α,ω -trihydroperfluoroalkyl allyl ethers H(CF₂CF₂)_nCH₂OCH₂CH:CH₂ (I; n = 1-3) were prepared in excellent yields by phase transfer catalysis

$H(CF_2CF_2)_nCH_2OH$ and allyl chloride using 3-siloxanylpropylammonium halides as a catalyst. In the presence of a Pt-olefin complex the hydrosilylation of I with $(Me_3SiO)_2MeSiH$ affords 3-siloxanylpropoxy- α,α',ω -trihydrofluoroalkanes in high yields. The reaction of I with aqueous $NaHSO_3/Na_2SO_3$ solution gives anionic fluorosurfactants beginning with $n = 3$.

RX(3) OF 8 ...C + J ==> K



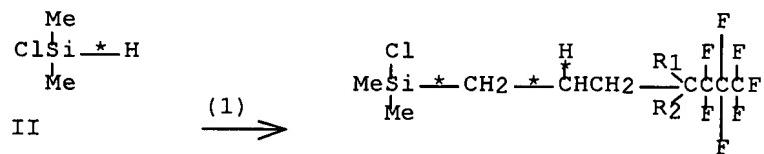
RX(3) RCT C 681-68-5, J 1873-88-7
 PRO K 133609-13-9
 CAT 7440-06-4D Pt

=> d bib ab fhit 27-30
 YOU HAVE REQUESTED DATA FROM FILE 'CASREACT, CHEMINFORMRX, HCPLUS, USPATFULL,
 WPIX, JAPIO, SCISEARCH' - CONTINUE? (Y)/N:y

L135 ANSWER 27 OF 66 CHEMINFORMRX COPYRIGHT 2007 FIZ CHEMIE on STN
 AN 200534226 CHEMINFORMRX Full-text
 TI Synthesis and Some Properties of Silanes and Siloxanes with
 5,5,6,6,7,7,7-Heptafluoro-4,4-bis(trifluoromethyl)heptyl Substituents.
 AU SHAMAEV, A. E.; IGNATENKO, A. V.; KRUKOVSKY, S. P.
 CS Zelinsky Inst. Org. Chem., Russ. Acad. Sci., Moscow 117913, Russia
 SO Russ. Chem. Bull., 53(10), 2229-2232 (2004)
 CODEN: RCBUEY ISSN: 1066-5285
 LA English
 AB Methods for the synthesis of new polyfluorinated silanes and siloxanes are presented. Polymerization of (VI) in the presence of 1,3-divinyltetramethyldisiloxane affords the corresponding oligomers.

RX(1) OF 9 A + B ==> C...

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

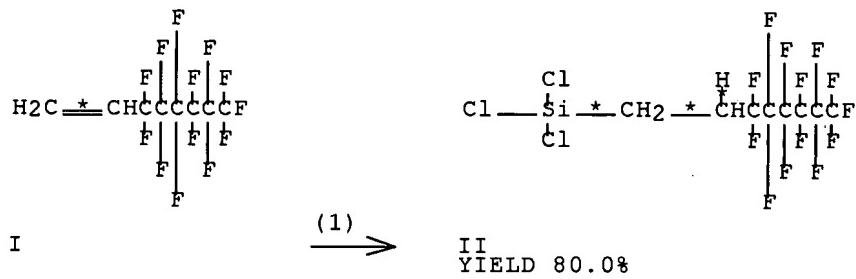


III
YIELD 86.0%

RX(1) RCT I, 8500 (72487-68-4)
 II, 13164 (1066-35-9)
 SOL 5102, neat
 CAT 759 (16941-12-1), H₂PtCl₆
 PRO III, 1097717
 YDS 86.0 %
 T 70.0 Cel
 TIM 2.0 hr
 KW addition; hydrosilylation; silylation; alkylation
 NTE reaction:I (II) -> III, example: 1

L135 ANSWER 28 OF 66 CHEMINFORMRX COPYRIGHT 2007 FIZ CHEMIE on STN
 AN 200219157 CHEMINFORMRX Full-text
 TI Synthesis of Perfluoroalkyl-Containing Multifunctional Groups Compounds for Textile Finishing.
 AU QING, F.-L.; JI, M.; LU, R.; YAN, K.; MAO, Z.
 CS Coll. Chem. Eng., Donghua Univ., Shanghai 200051, Peop. Rep. China
 SO J. Fluorine Chem., 113(1), 139-141 (2002)
 CODEN: JFLCAR ISSN: 0022-1139
 LA English.
 AB Key step in the Synthesis of the title compounds (V) and (VI) is the hydrosilylation of alkene (I) by using Karstedt's catalyst.

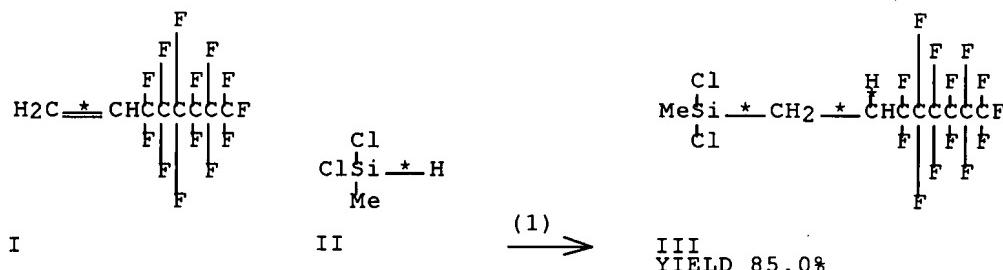
RX(1) OF 9 A ==> B...



RX(1) RCT I, 154791 (25291-17-2)
 RGT 587 (10025-78-2), HSiCl₃
 CAT 164859 (11057-89-9), poly-Pt[O(SiMe₂-CH=CH₂)₂]
 PRO II, 344541
 YDS 80.0 %
 T 60.0 Cel
 KW addition; hydrosilylation; silylation; alkylation
 NTE reaction:I → II

L135 ANSWER 29 OF 66 CHEMINFORMRX COPYRIGHT 2007 FIZ CHEMIE on STN
 AN 199445180 CHEMINFORMRX Full-text
 TI Study of the Alkylation of Chlorosilanes. Part 2. Synthesis of (Fluoroalkyl)chlorosilanes and Tetra(fluoroalkyl)silanes via Hydrosilylation.
 AU BOUTEVIN, B.; GUIDA-PIETRASANTA, F.; RATSIMIHETY, A.; CAPORICCIO, G.
 CS URA, CNRS-ENSCM, F-34053 Montpellier, Fr.
 SO J. Fluorine Chem., 68(1), 71-77 (1994)
 CODEN: JFLCAR ISSN: 0022-1139
 LA English
 AB The hydrosilylation of various fluorinated olefins in presence of a Pt catalyst is reported. The reactivity is influenced considerably by the structure of the silane and of the fluorinated olefin. All products are characterized by ¹H, ¹⁹F and ²⁹Si NMR spectroscopy.

RX(1) OF 7 A + B ==> C



RX(1) RCT I, 154791 (25291-17-2)
 II, 8144 (75-54-7)
 CAT 759 (16941-12-1), H₂PtCl₆
 PRO III, 344538
 YDS 85.0 %
 T 100.0 Cel
 KW addition; hydrosilylation; silylation; alkylation
 NTE reaction:I (II) → III, example: 1
 CMT Ratio = 70:30 for products 1,2

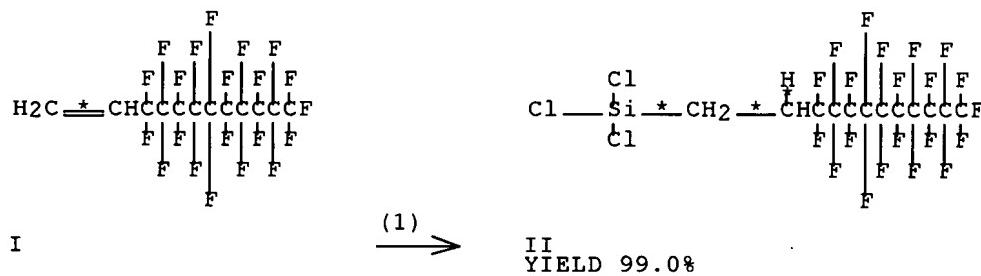
L135 ANSWER 30 OF 66 CHEMINFORMRX COPYRIGHT 2007 FIZ CHEMIE on STN
 AN 199342216 CHEMINFORMRX Full-text
 TI Syntheses and Reactions of Metal Organics. Part 18. Syntheses of (1H, 1H, 2H, 2H-Polyfluoroalkyl)trimethoxysilanes and Surface Modification of Glass Plate.
 AU YOSHINO, N.; YAMAMOTO, Y.; HAMANO, K.; KAWASE, T.
 CS Dep. Ind. Chem., Fac. Eng., Sci. Univ. Tokyo, Shinjuku, Tokyo 162, Japan

SO Bull. Chem. Soc. Jpn., 66(6), 1754-1758 (1993)
CODEN: BCSJAA ISSN: 0009-2673

LA English

AB Four silane coupling agents of type (IV) with R: perfluoroalkyl groups (C10, C8, C6, C4) are prepared and used for surface modification of glass plate. From measurements of the contact angles of water and oleic acid against a modified glass plate surface, the coupling agents are found to have high modification ability. The modification produces a glass surface with high oxidation resistance.

RX(1) OF 6 A ==> B...



RX(1) RCT I, 269760 (30389-25-4)
RGT 587 (10025-78-2), HSiCl₃
CAT 759 (16941-12-1), H₂PtCl₆
PRO II, 269761 (102488-49-3)
YDS 99.0 %
T 100.0 Cel
KW addition; hydrosilylation; silylation; alkylation
NTE reaction:I → II, example: 1
CMT Ratio = 4:3 for products 1,2

=> d ibib ed abs hitind hitstr 31-37
YOU HAVE REQUESTED DATA FROM FILE 'CASREACT, CHEMINFORMRX, HCPLUS, USPATFULL,
WPIX, JAPIO, SCISEARCH' - CONTINUE? (Y)/N:v

L135 ANSWER 31 OF 66 HCPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 2003:1293 HCPLUS Full-text
DOCUMENT NUMBER: 138:39404
TITLE: Preparation of organosilanes
INVENTOR(S): Dinh, Paul C.; Phillips, Dennis E.; Brandt, David L.;
Maki, William C.
PATENT ASSIGNEE(S): Dow Corning Corporation, USA
SOURCE: U.S., 5 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

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US 6500977	B1	20021231	US 2001-995045	20011127 <--
EP 1314735	A2	20030528	EP 2002-257973	20021119 <--
EP 1314735	A3	20030917		
EP 1314735	B1	20070307		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
AT 356134	T	20070315	AT 2002-257973	20021119 <--
JP 2003183289	A	20030703	JP 2002-342812	20021126 <--
CN 1421447	A	20030604	CN 2002-152756	20021127 <--
PRIORITY APPLN. INFO.:			US 2001-995045	A 20011127 <--

OTHER SOURCE(S): CASREACT 138:39404

ED Entered STN: 02 Jan 2003

AB Organosilanes were prepared by reacting an alkene halide with a hydrogen silane in the presence of a hydrosilating catalyst. For example, allyl chloride was reacted with HSiCl₃ in the presence of a bimetallic platinum copper catalyst to give a 27.37 weight ratio of desired chloropropyltrichlorosilane to propyltrichlorosilane.

IC ICM C07F007-08

INCL 556479000

CC 29-6 (Organometallic and Organometalloidal Compounds)

ST organo silane prepn; chloropropyltrichlorosilane prepn; alkenyl halide hydrosilation hydrogen silane; platinum copper hydrosilation catalyst

IT Hydrosilylation

Hydrosilylation catalysts

(preparation of organosilanes by reaction of alkenyl halides with hydrogen silanes in presence of hydrosilylation catalysts)

IT Silanes

RL: BYP (Byproduct); IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of organosilanes by reaction of alkenyl halides with hydrogen silanes in presence of hydrosilylation catalysts)

IT Alkenyl halides

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of organosilanes by reaction of alkenyl halides with hydrogen silanes in presence of hydrosilylation catalysts)

IT 141-57-1P

RL: BYP (Byproduct); PREP (Preparation)

(preparation of organosilanes by reaction of alkenyl halides with hydrogen silanes in presence of hydrosilylation catalysts)

IT 7440-06-4D, Platinum, bimetallic catalyst with copper,

carbon supported 7440-50-8D, Copper, bimetallic catalyst with platinum, carbon supported

RL: CAT (Catalyst use); USES (Uses)

(preparation of organosilanes by reaction of alkenyl halides with hydrogen silanes in presence of hydrosilylation catalysts)

IT 2550-06-3P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(preparation of organosilanes by reaction of alkenyl halides with hydrogen silanes in presence of hydrosilylation catalysts)

IT 75-01-4, Vinyl chloride, reactions 106-95-6, Allyl bromide,

reactions 107-05-1, Allyl chloride 126-99-8,

Chloroprene 556-56-9, Allyl iodide 563-47-3, Methylallyl

chloride 677-21-4, 3,3,3-Trifluoropropene

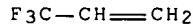
1073-67-2, 4-Chlorostyrene 1592-20-7, 4-Chloromethyl

styrene 10025-78-2, Trichlorosilane

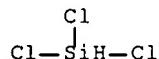
RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of organosilanes by reaction of alkenyl halides with hydrogen silanes in presence of hydrosilylation)

IT catalysts)
677-21-4, 3,3,3-Trifluoropropene 10025-78-2,
Trichlorosilane
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of organosilanes by reaction of alkenyl halides with
 hydrogen silanes in presence of hydrosilylation
catalysts)
 RN 677-21-4 HCAPLUS
 CN 1-Propene, 3,3,3-trifluoro- (CA INDEX NAME)



RN 10025-78-2 HCAPLUS
 CN Silane, trichloro- (CA INDEX NAME)

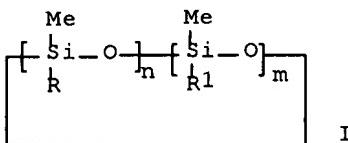


REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 32 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2004:188896 HCAPLUS Full-text
 DOCUMENT NUMBER: 141:123755
 TITLE: Preparation of hydrosilylation
catalysts from chloroplatinic acid,
 alkenylpolysiloxanes and cyclosiloxanes
 INVENTOR(S): Nikolaev, G. A.; Khoroshavina, Yu. V.; Lobkov, V. D.;
 Kormer, V. A.
 PATENT ASSIGNEE(S): Russia
 SOURCE: Russ., No pp. given
 CODEN: RUXXE7
 DOCUMENT TYPE: Patent
 LANGUAGE: Russian
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RU 2220769	C2	20040110	RU 2001-119771	20010716 <--
PRIORITY APPLN. INFO.:			RU 2001-119771	20010716 <--

OTHER SOURCE(S): MARPAT 141:123755
 ED Entered STN: 09 Mar 2004
 GI



- AB **Hydrosilylation catalysts**, useful in production of alkylsilanes, are prepared by reaction of **chloroplatinic acid** with alkenylpolysiloxanes and cyclosiloxanes, preferably I (R' = Et, CF₃CH₂CH₂, Ph; R = R', Me; n = 1-3; m = 1-3; and n + m = 3 or 4) in a solvent at elevated temperature and stirring, with the vinylsiloxane unit-to-**Pt** ratio being (40-50):1, followed by adding NaHCO₃ at room temperature. **Catalysts** thus prepared have increased **catalytic** activity and 2.5-3 times the shelf life of **catalysts** prepared by prior art. In an example, **hydrosilylation** of CF₂CH:CH₂ by MeSiCl₂H in presence of a **catalyst** prepared from **H₂PtCl₆**, polydimethyl(methyl)vinylsiloxanes containing 30% methylvinylsiloxane units and 1,3,5-trimethyl-1,3,5-tris(3,3,3-**trifluoropropyl**)cyclotrisiloxane in Me₂CHOH and subsequent treatment with NaHCO₃ and storage for 6 mo gave 99% CF₃CH₂CH₂Si(Me)Cl₂.
- ICM B01J037-04
ICS B01J037-30; B01J023-42; B01J031-06; C08G077-442
CC 29-6 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 67
ST **hydrosilylation catalyst platinum**
alkenylpolysiloxane cyclosiloxane prepn
IT Polysiloxanes, reactions
RL: CAT (Catalyst use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(alkenylpolysiloxanes; preparation of **hydrosilylation catalysts** having improved activity and shelf life from **chloroplatinic acid**, alkenylpolysiloxanes and cyclosiloxanes)
IT **Hydrosilylation catalysts**
(preparation of **hydrosilylation catalysts** having improved activity and shelf life from **chloroplatinic acid**, alkenylpolysiloxanes and cyclosiloxanes)
IT Cyclosiloxanes
RL: CAT (Catalyst use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(preparation of **hydrosilylation catalysts** having improved activity and shelf life from **chloroplatinic acid**, alkenylpolysiloxanes and cyclosiloxanes)
IT 556-67-2DP, Octamethylcyclotetrasiloxane, reaction products with **chloroplatinic acid** and polysiloxanes 2374-14-3DP, reaction products with **chloroplatinic acid** and polysiloxanes 10448-10-9DP, reaction products with **chloroplatinic acid** and polysiloxanes 15445-52-0DP, reaction products with **chloroplatinic acid** and polysiloxanes 15901-49-2DP, reaction products with **chloroplatinic acid** and polysiloxanes 16941-12-1DP, **Chloroplatinic acid**, reaction products with polysiloxanes and cyclosiloxanes
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(preparation of **hydrosilylation catalysts** having improved activity and shelf life from **chloroplatinic acid**, alkenylpolysiloxanes and cyclosiloxanes)
IT 75-54-7, **Dichloro**(methyl)silane 556-67-2, Octamethylcyclotetrasiloxane **677-21-4**, 3,3,3-

Trifluoropropene 2374-14-3 10448-10-9 15445-52-0
 15901-49-2 16941-12-1, Chloroplatinic acid
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of hydrosilylation catalysts having
 improved activity and shelf life from chloroplatinic acid,
 alkenylpolysiloxanes and cyclosiloxanes)
 IT 144-55-8, Sodium bicarbonate, reactions
 RL: RGT (Reagent); RACT (Reactant or reagent)
 (preparation of hydrosilylation catalysts having
 improved activity and shelf life from chloroplatinic acid,
 alkenylpolysiloxanes and cyclosiloxanes)
 IT 675-62-7P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of hydrosilylation catalysts having
 improved activity and shelf life from chloroplatinic acid,
 alkenylpolysiloxanes and cyclosiloxanes)
 IT **677-21-4, 3,3,3-Trifluoropropene**
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of hydrosilylation catalysts having
 improved activity and shelf life from chloroplatinic acid,
 alkenylpolysiloxanes and cyclosiloxanes)
 RN 677-21-4 HCPLUS
 CN 1-Propene, 3,3,3-trifluoro- (CA INDEX NAME)



L135 ANSWER 33 OF 66 HCPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2002:50080 HCPLUS Full-text
 DOCUMENT NUMBER: 136:326874
 TITLE: Synthesis of perfluoroalkyl-containing
 multifunctional groups compounds for textile finishing
 Qing, Feng-Ling; Ji, Min; Lu, Ronghua; Yan, Kelu; Mao,
 Zhiping
 CORPORATE SOURCE: College of Chemistry and Chemical Engineering, Donghua
 University, Shanghai, 200051, Peop. Rep. China
 SOURCE: Journal of Fluorine Chemistry (2002),
 113(1), 139-141
 CODEN: JFLCAR; ISSN: 0022-1139
 PUBLISHER: Elsevier Science S.A.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 18 Jan 2002
 AB A new kind of perfluoroalkyl-containing multifunctional groups compound was
 designed. Treatment of 1H,1H,2H,2H- perfluoroctyltrichlorosilane with
 allylmagnesium bromide provided key intermediate 1H,1H,2H,2H-
perfluoroctyltriallylsilane. Hydroboration followed by oxidation, epoxidn.
 and dihydroxylation of 2 gave perfluoroalkyl-containing multifunctional
 groups.
 CC 40-9 (Textiles and Fibers)
 ST fluoroalkyl multifunctional compd synthesis textile finishing
 IT Fabric finishing
 (synthesis of perfluoroalkyl-containing multifunctional groups
 compds. for textile finishing)
 IT **25291-17-2P, 1H,1H,2H-Perfluoro-1-octene**
78560-45-9P, 1H,1H,2H-Perfluoroctyltrichlorosilane

193828-95-4P, 1H,1H,2H-Perfluoroctyltriallysilane
 415708-49-5P 415708-50-8P, 1H,1H,2H-Perfluoroctyltriglycidylsilane

RL: RCT (Reactant); SPN (Synthetic preparation);
PREP (Preparation); RACT (Reactant or reagent)

(intermediate; synthesis of perfluoroalkyl-containing
 multifunctional groups compds. for textile finishing)

IT 74-85-1, Ethylene, reactions 106-95-6, Allyl bromide, reactions
 355-43-1, 1-Iodoperfluorohexane 10025-78-2,

Trichlorosilane

RL: RCT (Reactant); RACT (Reactant or reagent)

(starting material; synthesis of perfluoroalkyl-containing
 multifunctional groups compds. for textile finishing)

IT 415708-51-9P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)

(synthesis of perfluoroalkyl-containing multifunctional groups
 compds. for textile finishing)

IT 25291-17-2P, 1H,1H,2H-Perfluoro-1-octene

78560-45-9P, 1H,1H,2H-Perfluoroctyltrichlorosilane

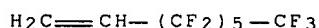
RL: RCT (Reactant); SPN (Synthetic preparation);

PREP (Preparation); RACT (Reactant or reagent)

(intermediate; synthesis of perfluoroalkyl-containing
 multifunctional groups compds. for textile finishing)

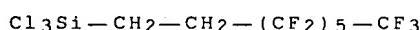
RN 25291-17-2 HCAPLUS

CN 1-Octene, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro- (CA INDEX NAME)



RN 78560-45-9 HCAPLUS

CN Silane, trichloro(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoroctyl)- (CA
 INDEX NAME)



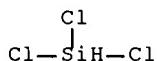
IT 10025-78-2, Trichlorosilane

RL: RCT (Reactant); RACT (Reactant or reagent)

(starting material; synthesis of perfluoroalkyl-containing
 multifunctional groups compds. for textile finishing)

RN 10025-78-2 HCAPLUS

CN Silane, trichloro- (CA INDEX NAME)



REFERENCE COUNT:

17

THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 34 OF 66 HCPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2000:227664 HCPLUS Full-text
 DOCUMENT NUMBER: 132:265298
 TITLE: **Fluorous** phosphines, processes for their preparation and use in **catalysis**
 INVENTOR(S): Richter, Bodo; De Wolf, Aloysius Cornelius Adrianus;
 Van Koten, Gerard; Deelman, Berth Jan
 PATENT ASSIGNEE(S): Elf Atochem Vlissingen B.V., Neth.
 SOURCE: PCT Int. Appl., 59 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000018774	A1	20000406	WO 1999-NL603	19990929 <--
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9962316	A1	20000417	AU 1999-62316	19990929 <--
EP 1117668	A1	20010725	EP 1999-949444	19990929 <--
EP 1117668	B1	20021211		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
AT 229534	T	20021215	AT 1999-949444	19990929 <--
PT 1117668	T	20030430	PT 1999-949444	19990929 <--
ES 2191468	T3	20030901	ES 1999-949444	19990929 <--
US 6458978	B1	20021001	US 2001-787625	20010521 <--
PRIORITY APPLN. INFO.:			EP 1998-203308	A 19980930 <--
			WO 1999-NL603	W 19990929 <--

OTHER SOURCE(S): CASREACT 132:265298; MARPAT 132:265298

ED Entered STN: 07 Apr 2000

AB **Fluorous** phosphines in which the phosphorus atom is coupled to at least one aryl or alkyl moiety to which a **fluorous** tail is coupled, wherein a spacer group containing a noncarbon atom is positioned between the aryl or alkyl moiety and the **fluorous** tail, are claimed. Preferably, the phosphines are monophosphines PRR₁R₂ [at least one of R, R₁ or R₂ = alkyl-R₃ or (un)substituted aryl-R₃; R₃ = spacer group coupled to **fluorous** tail] or diphosphines RR₁PZPR₂R₄ [Z = achiral or chiral bridging hydrocarbyl; at least one of R, R₁, R₂ or R₄ = alkyl-R₃ or (un)substituted aryl-R₃; R₃ = spacer group coupled to **fluorous** tail], the spacer group is Y(R₅)_n(R₆)_{3-m-n}[(CH₂)_z]_m (Y = **Si**, Sn, Ge, preferably **Si**; R₅, R₆ = C₁₋₁₄ cycloalkyl, C₁₋₁₄ aryl, C₁₋₁₄ cycloaralkyl, C₁₋₁₄ cycloalkylaryl, and/or **fluorous** tails; m = 1-3, n = 0-3, where m + n ≤ 3; z = 0-10), and the **fluorous** tail is a C_xF_{2x+1} group (x = 1-30). A multi-step process for the preparation of said phosphines starting from X(CH₂)_zCxF_{2x+1} (same x, z; X = halo) and subsequent formation of metal complexes, **catalysts** and **catalyst** compds. therefrom and their use in homogeneous **catalysis** of hydroformylation, hydroboration, cross-coupling, Heck-type reactions and/or hydrogenation reactions of unsatd. compds. are further claimed. Thus, in examples given, treating 50.0 mmol C₆F₁₃CH₂:CH₂ with 180 mmol HSiMe₂Cl in presence of 40 mg **H₂PtCl₆** gave 60% C₆F₁₃CH₂CH₂SiMe₂Cl,

which in turn reacted with 1 equiv p-BrC₆H₄Li in pentane to give 83% p-C₆F₁₃CH₂CH₂SiMe₂C₆H₄Br, which when lithiated with tert-BuLi and treated with PCl₃ in THF-hexane gave P[C₆H₄(SiMe₂CH₂CH₂C₆F₁₃)-p]3; this was then reacted with [(COD)RhCl]₂ in PhMe-hexane to give 43% ClRh[P[C₆H₄(SiMe₂CH₂CH₂C₆F₁₃)-p]3]3. The above rhodium compound catalyzed hydrogenation of 1-octene in 99% conversion with TOF of 1110, as compared to 98% conversion and TOF of 960 for Wilkinson's catalyst.

- IC ICM C07F009-50
 ICS C07F015-00; C07B031-00; C07C045-50; C07B037-04; B01J031-24
 CC 29-7 (Organometallic and Organometalloidal Compounds)
 Section cross-reference(s): 21, 67, 78
 ST phosphine fluorous prepn metal complex catalyst;
 hydrogenation catalyst homogeneous rhodium fluorous
 phosphine; cross coupling catalyst nickel fluorous
 phosphine; platinum fluorous phosphine homogeneous
catalyst prep; silane spacer fluorous tail phosphine
 prepn
 IT Silanes
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (chloro; preparation of organic phosphines having a silane spacer
 group coupled to a fluorous tail as catalyst
 precursors)
 IT Phosphines
 RL: CAT (Catalyst use); RCT (Reactant); SPN (Synthetic preparation); PREP
 (Preparation); RACT (Reactant or reagent); USES (Uses)
 (fluorous; preparation of organic phosphines having a silane spacer
 group coupled to a fluorous tail as catalyst
 precursors)
 IT Alkenes, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (hydrogenation of alkenes in presence of metal complexes of organic
 phosphines having a silane spacer group coupled to a fluorous
 tail as catalysts)
 IT Partition
 (of metal complexes of organic phosphines having a silane spacer group
 coupled to a fluorous tail as catalysts)
 IT Cross-coupling reaction catalysts
 Hydroboration catalysts
 Hydroformylation catalysts
 Hydrogenation catalysts
 (preparation of metal complexes of organic phosphines having a silane
 spacer
 group coupled to a fluorous tail as catalysts)
 IT 108-90-7, Chlorobenzene, reactions 693-03-8, Butylmagnesium
 bromide
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (catalytic cross-coupling reaction of chlorobenzene
 with butylmagnesium bromide in presence of nickel catalyst
 having phosphines with a silane spacer group coupled to a
fluorous tail as ligands)
 IT 104-51-8P, n-Butylbenzene
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (catalytic cross-coupling reaction of chlorobenzene
 with butylmagnesium bromide in presence of nickel catalyst
 having phosphines with a silane spacer group coupled to a
fluorous tail as ligands)
 IT 111-66-0, 1-Octene
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (catalytic hydrogenation of octene in presence of rhodium
catalyst having phosphines with a silane spacer group coupled

- to a fluorous tail as ligands)
 IT 111-65-9P, n-Octane, preparation
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (catalytic hydrogenation of octene in presence of rhodium
catalyst having phosphines with a silane spacer group coupled
 to a fluorous tail as ligands)
- IT 28240-69-9, 1,2-Bis(dichlorophosphino)ethane
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (coupling reaction with dibromobenzene)
- IT 2043-53-0 2043-57-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (formation of Grignard; preparation of organic phosphines having a silane
 spacer group coupled to a fluorous tail as catalyst
 precursors)
- IT 1066-35-9, Chloro(dimethyl)silane
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (hydrosilylation of fluoroalkenes; preparation of organic
 phosphines having a silane spacer group coupled to a fluorous
 tail as catalyst precursors)
- IT 21652-58-4 25291-17-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (hydrosilylation of; preparation of organic phosphines having a
 silane spacer group coupled to a fluorous tail as
catalyst precursors)
- IT 589-87-7, p-Iodobromobenzene
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (lithiation; preparation of organic phosphines having a silane spacer group
 coupled to a fluorous tail as catalyst precursors)
- IT 6999-03-7P 17881-54-8P 18848-96-9P 29949-81-3P 74612-30-9P
 102488-47-1P 133096-86-3P 147701-73-3P 201740-57-0P 253434-29-6P
 253434-30-9P 253434-31-0P 253434-32-1P 253434-33-2P 253434-34-3P
 263024-36-8P 263024-37-9P 263024-38-0P 263024-39-1P 263024-40-4P
 263024-41-5P 263024-42-6P 263024-43-7P 263024-44-8P 263024-45-9P
 263024-46-0P 263024-47-1P 263024-48-2P 263024-49-3P 263148-74-9P
 263148-75-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation as intermediate in preparation of organic phosphines having a
 silane
 spacer group coupled to a fluorous tail as catalyst
 precursors)
- IT 263024-51-7P 263024-53-9P 263024-54-0P
 RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);
 USES (Uses)
 (preparation of metal complexes of organic phosphines having a silane
 spacer
 group coupled to a fluorous tail for use as catalysts
)
- IT 12080-32-9 12092-47-6, Chloro(cyclooctadiene)rhodium dimer
 12245-39-5, (Acetylacetonato)(cyclooctadiene)rhodium 14694-95-2,
 Wilkinson's catalyst
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of metal complexes of organic phosphines having a silane
 spacer
 group coupled to a fluorous tail for use as catalysts
)
- IT 263024-52-8P
 RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);
 USES (Uses)
 (preparation of nickel catalyst having phosphines with a silane

spacer group coupled to a fluorous tail as ligands for cross-coupling reaction of chlorobenzene with butylmagnesium bromide)

IT 106-37-6, 1,4-Dibromobenzene 121-45-9, Trimethyl phosphite
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of organic phosphines having a silane spacer group coupled to a
 a fluorous tail as catalyst precursors)

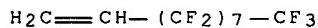
IT 254114-65-3P 254450-89-0P 254450-90-3P
 RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);
 USES (Uses)
 (preparation of rhodium catalyst having phosphines with a silane spacer group coupled to a fluorous tail as ligands for hydrogenation of octene)

IT 75-54-7 10025-78-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (silylation of Grignards; preparation of organic phosphines having a silane spacer group coupled to a fluorous tail as catalyst precursors)

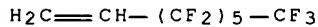
IT 75-77-4, Chloro(trimethyl)silane, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (silylation with; preparation of organic phosphines having a silane spacer group coupled to a fluorous tail as catalyst precursors)

IT 21652-58-4 25291-17-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (hydrosilylation of; preparation of organic phosphines having a silane spacer group coupled to a fluorous tail as catalyst precursors)

RN 21652-58-4 HCPLUS
 CN 1-Decene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heptadecafluoro- (CA INDEX NAME)

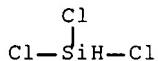


RN 25291-17-2 HCPLUS
 CN 1-Octene, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro- (CA INDEX NAME)



IT 10025-78-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (silylation of Grignards; preparation of organic phosphines having a silane spacer group coupled to a fluorous tail as catalyst precursors)

RN 10025-78-2 HCPLUS
 CN Silane, trichloro- (CA INDEX NAME)

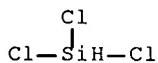


REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 35 OF 66 HCPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2000:356040 HCPLUS Full-text
 DOCUMENT NUMBER: 133:89583
 TITLE: Synthesis and Properties of a Novel Family of **Fluorous** Triphenylphosphine Derivatives
 AUTHOR(S): Richter, Bodo; de Wolf, Elwin; van Koten, Gerard;
 Deelman, Berth-Jan
 CORPORATE SOURCE: Department of Metal-Mediated Synthesis Debye Institute, Utrecht University, Utrecht, 3584 CH, Neth.
 SOURCE: Journal of Organic Chemistry (2000), 65(13), 3885-3893
 CODEN: JOCEAH; ISSN: 0022-3263
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 133:89583
 ED Entered STN: 30 May 2000
 AB A novel approach to the preparation of **perfluoro**-tail-functionalized triarylphosphines using a p-silyl substituent as the branching point was developed. This approach enabled the attachment of between three and nine **perfluoro** tails per P atom, giving highly **fluorous** tris[p-(1H,1H,2H,2H-**perfluoroalkylsilyl**)aryl]phosphines, P[C₆H₄-p-SiMe₃-n(CH₂CH₂CxF_{2x+1})n]3 (n = 1, 2, 3; x = 6, 8), containing between 50 and 67% **F**. ³¹P NMR studies indicate that the P atoms, and consequently the σ-donor and π-acceptor properties of these phosphines, are not influenced by the electron-withdrawing **perfluoroalkyl** tails. The **fluorous** triarylphosphines are readily soluble in **fluorous** solvents and display **fluorous** phase preference in several **fluorous** biphasic systems. The phase partitioning of these **fluorous** ligands, as well as their donor properties, is discussed in relation to their potential for **fluorous** biphasic **catalyst** separation
 CC 29-7 (Organometallic and Organometalloidal Compounds)
 Section cross-reference(s): 22, 68
 ST **fluorous** triarylphosphine prepn solv partition coeff; phosphine
fluorous triaryl prepn solv partition coeff
 IT Partition
 (of **perfluoro**-tail-functionalized triarylphosphines between octane and **fluorous** solvent)
 IT Solubility
 (of **perfluoro**-tail-functionalized triarylphosphines in **fluorous** solvents)
 IT Phosphines
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (**perfluoro**-tail-functionalized triarylphosphines; preparation, NMR, solubility in **fluorous** solvent and partition coeffs. between octane and **fluorous** solvent)
 IT 280757-19-9P, 1,4-Bis(dimethyl(3,3,4,4,5,5,6,6,7,7,8,8,8-**tridecafluoroctyl**)silyl)benzene
 RL: BYP (Byproduct); PREP (Preparation)
 (byproduct from (bromophenyl)lithium and **fluorous** chlorosilane)
 IT 589-87-7, p-Bromoiodobenzene

- IT 106-37-6, 1,4-Dibromobenzene
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (lithiation followed by metathesis with chlorosilanes)
- IT 2043-53-0, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-Heptadecafluoro
 -10-iododecane 2043-57-4, 1,1,1,2,2,3,3,4,4,5,5,6,6-
Tridecafluoro-8-iodooctane
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (metathesis of Grignard reagent with dichloro(methyl)
silane)
- IT 75-54-7, Dichloro(methyl)silane
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (metathesis with fluorous Grignard reagent)
- IT 10025-78-2, Trichlorosilane
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (metathesis with fluorous Grignard reagents)
- IT 21652-58-4, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-
Heptadecafluoro-1-decene 25291-17-2,
 3,3,4,4,5,5,6,6,7,7,8,8-Tridecafluoro-1-octene
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (platinum-catalyzed addition reaction with
chlorodimethylsilane)
- IT 1066-35-9, Chlorodimethylsilane
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (platinum-catalyzed addition reaction with
fluorous alkenes)
- IT 147701-73-3P, Tris(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoroctyl)silane 263024-36-8P, Methylbis(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoroctyl)silane 263024-37-9P,
 Bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)
) (methyl)silane 263024-38-0P, Tris(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)silane
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and bromination of)
- IT 29949-81-3P, Tris(4-bromophenyl)phosphine 147701-71-1P,
Chlorotris(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoroctyl)silane
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and lithiation followed by metathesis with fluorous
 bromosilanes)
- IT 253434-29-6P, (4-Bromophenyl)dimethyl(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoroctyl)silane 253434-30-9P, (4-
 Bromophenyl)(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-
heptadecafluorodecyl)dimethylsilane
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and lithiation followed by metathesis with phosphorous
chloride)
- IT 102488-47-1P, Chlorodimethyl(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoroctyl)silane
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and metatheses with (bromophenyl)lithium and trilithiated
 triphenylphosphine)
- IT 74612-30-9P, Chloro(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-
heptadecafluorodecyl)dimethylsilane
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

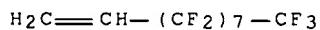
- (Reactant or reagent)
 preparation and metathesis with (bromophenyl)lithium
 IT 76598-01-1P, 3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluoroctylmagnesium
 iodide 249301-95-9P, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-
Heptadecafluorodecylmagnesium iodide
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 preparation and metathesis with dichloro(methyl)silane
 IT 263024-39-1P, Bromo(methyl)bis(3,3,4,4,5,5,6,6,7,7,8,8,8-
tridecafluoroctyl)silane 263024-40-4P,
 Bromobis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl
) (methyl)silane 263024-41-5P, Bromotris(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,1
 0,10-heptadecafluorodecyl)silane
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 preparation and metathesis with trilithiated triphenylphosphine
 IT 6999-03-7P, (4-Bromophenyl)trimethylsilane 13183-70-5P,
 1,4-Bis(trimethylsilyl)benzene 18848-96-9P, Tris(4-
 (trimethylsilyl)phenyl)phosphine
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 preparation as NMR comparison compound in study of perfluoro
 -tail-functionalized triarylphosphines
 IT 280757-20-2P, 1,4-Bis((3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-
heptadecafluorodecyl)dimethylsilyl)benzene
 RL: BYP (Byproduct); PREP (Preparation)
 (preparation of)
 IT 133096-86-3P, Dimethyl(3,3,4,4,5,5,6,6,7,7,8,8,8-
tridecafluoroctyl)silane
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 IT 253434-33-2P, Tris(4-(dimethyl(3,3,4,4,5,5,6,6,7,7,8,8,8-
tridecafluoroctyl)silyl)phenyl)phosphine 253434-34-3P,
 Tris(4-((3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl
)dimethylsilyl)phenyl)phosphine 263024-42-6P, Tris(4-
 (methylbis(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoroctyl
)silyl)phenyl)phosphine 263024-43-7P, Tris(4-
 (tris(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoroctyl
)silyl)phenyl)phosphine 263024-44-8P, Tris(4-
 (bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl
)methylsilyl)phenyl)phosphine 263148-74-9P, Tris(4-
 (tris(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl
)silyl)phenyl)phosphine
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (preparation, solubility in fluorous solvent and partition coeffs.
 between octane and fluorous solvent)
 IT 10025-78-2, Trichlorosilane
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (metathesis with fluorous Grignard reagents)
 RN 10025-78-2 HCPLUS
 CN Silane, trichloro- (CA INDEX NAME)



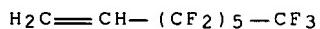
- IT 21652-58-4, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-
Heptadecafluoro-1-decene 25291-17-2,

3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluoro-1-octene
 RL: RCT (Reactant); RACT (Reactant or reagent)
(platinum-catalyzed addition reaction with
chlorodimethylsilane)

RN 21652-58-4 HCPLUS
 CN 1-Decene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro- (CA INDEX NAME)



RN 25291-17-2 HCPLUS
 CN 1-Octene, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro- (CA INDEX NAME)



REFERENCE COUNT: 66 THERE ARE 66 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 36 OF 66 HCPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1993:234135 HCPLUS Full-text
 DOCUMENT NUMBER: 118:234135
 TITLE: Study of the alkylation of chlorosilanes.
 Part I. Synthesis of tetra(1H,1H,2H,2H-
polyfluoroalkyl)silanes
 AUTHOR(S): Boutevin, B.; Guida-Pietrasanta, F.; Ratsimihety, A.;
 Caporiccio, G.; Gornowicz, G.
 CORPORATE SOURCE: ENSCM, Montpellier, 34053, Fr.
 SOURCE: Journal of Fluorine Chemistry (1993),
 60(2-3), 211-23
 DOCUMENT TYPE: CODEN: JFLCAR; ISSN: 0022-1139
 LANGUAGE: Journal
 English
 OTHER SOURCE(S): CASREACT 118:234135
 ED Entered STN: 12 Jun 1993
 AB The synthesis and structural characterization of tetra(1H,1H,2H,2H-
polyfluoroalkyl)silanes with the same or different chain lengths $\text{C}_n\text{F}_{2n+1}$
 linked to Si ($1 \leq n \leq 6$) is reported. When the synthesis was effected from
chlorosilanes and fluorinated organomagnesium or organolithium reagents, the
 trialkylsilanes were obtained. The last fluorinated chain was introduced
 either via a fluoroalkyllithium reagent or by hydrosilylation of the
 trialkylsilanes. Some properties and characterization by ^1H , ^{19}F and ^{29}Si NMR
 spectroscopy of the 1H,1H,2H,2H- polyfluoroalkylsilanes are described.
 CC 29-6 (Organometallic and Organometalloid Compounds)
 ST alkylation chlorosilane fluorinated organomagnesium
 organolithium reagent; silane polyfluoroalkyl;
fluoroalkyl silane
 IT Alkylation
 (agents, of chlorosilanes with
polyfluoroalkylmagnesium or -lithium)
 IT Silanes
 RL: RCT (Reactant); RACT (Reactant or reagent)
(chloro, alkylation of, with polyfluoroalkylmagnesium

or -lithium reagents)

IT 592-09-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (alkylation of, with polyfluoroalkylmagnesium chloride)

IT 10026-04-7, Silicon tetrachloride
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (alkylation of, with polyfluoroalkylmagnesium iodide)

IT 870-56-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrosilylation by, of polyfluoroalkene)

IT 25291-17-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrosilylation of)

IT 10025-78-2, Trichlorosilane
 RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrosilylation with polyfluoroalkene or
alkylation of, with polyfluoroalkylmagnesium iodide)

IT 461-21-2P, 3,3,3-Trifluoropropylmagnesium chloride
 76598-01-1P 147701-78-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and alkylation by, of chlorosilanes)

IT 147701-76-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and alkylation of, with polyfluoroalkyllithium)

IT 4168-09-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and alkylation of, with polyfluoroalkylmagnesium chloride)

IT 78560-45-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
 (Reactant or reagent)
 (preparation and alkylation of, with polyfluoroalkylmagnesium halide)

IT 147701-75-5P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and alkylation of, with polyfluoroalkylmagnesium iodide)

IT 147701-73-3P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and hydrosilylation by, of tridecafluoroctene)

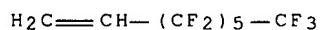
IT 682-37-1P 147701-71-1P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and substitution of, with fluoride)

IT 462-55-5P 1467-13-6P, Tetrakis(3,3,3-trifluoropropyl)silane
 20466-96-0P, Fluorotris(3,3,3-trifluoropropyl)silane
 76597-99-4P 80793-17-5P 147701-72-2P 147701-74-4P 147701-77-7P
 147701-79-9P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

IT 25291-17-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrosilylation of)

RN 25291-17-2 HCPLUS

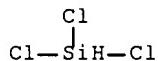
CN 1-Octene, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro- (CA INDEX NAME)

IT 10025-78-2, Trichlorosilane

RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrosilylation with polyfluoroalkene or
alkylation of, with polyfluoroalkylmagnesium iodide)

RN 10025-78-2 HCPLUS

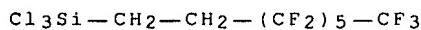
CN Silane, trichloro- (CA INDEX NAME)

IT 78560-45-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation and alkylation of, with polyfluoroalkylmagnesium
halide)

RN 78560-45-9 HCPLUS

CN Silane, trichloro(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)- (CA INDEX NAME)



L135 ANSWER 37 OF 66 HCPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1968:48668 HCPLUS Full-text

DOCUMENT NUMBER: 68:48668

ORIGINAL REFERENCE NO.: 68:9390h, 9391a

TITLE: Mechanism of homogeneous catalytic
hydrosilylation in the presence of
H₂PtCl₆.6H₂O

AUTHOR(S): Kagan, E. G.

CORPORATE SOURCE: Vses. Nauch.-Issled. Inst. Sint. Kauch. im. Lebedeva,
 Leningrad, USSR

SOURCE: Zhurnal Obshchey Khimii (1967), 37(7),
 1692-3

CODEN: ZOKHA4; ISSN: 0044-460X

DOCUMENT TYPE: Journal

LANGUAGE: Russian

ED Entered STN: 12 May 1984

GI For diagram(s), see printed CA Issue.

AB The homogeneous, catalyzed reaction RCH:CH₂ + MeSiHCl₂ in the presence of
H₂PtCl₆.6H₂O, which forms RCH₂CH₂SiMeCl₂ was shown dilatometrically to have
 kinetic order or unity, overall, and not 2, provided that the reactants are
 used in 1:1 molar ratio; with excess of silane the reaction is of 1st order

relative to silane but not the olefin. Only with sluggish and weakly active olefin such as CF₃CH:CH₂ with excess silane was the 2nd-order reaction observed over a narrow range of conversions. Hence the above reaction has several steps in which the rate determining step is that in which MeSiHCl₂ takes part. With pre-prepared catalyst complex the reaction is of 1st order and its rate is proportional to sq. root of Pt concentration. The mechanism shown is suggested for the catalysis. The slow step is the cleavage of Si-H bond in the reaction of the silane with the catalyst.

CC 22 (Physical Organic Chemistry)
 ST MECHANISM HYDROSILYLATION; HYDROSILYLATION
CATALYTIC; CATALYTIC HYDROSILYLATION
 IT Hydrosilylation catalysts
 (dihydrogen hexachloroplatinate(2-) as, for olefins)
 IT Hydrosilylation
 (of propene and of 3,3,3-trifluoropropene, mechanism of)
 IT 16941-12-1
 RL: CAT (Catalyst use); USES (Uses)
 (catalysts, for hydrosilylation of olefins)
 IT 115-07-1, reactions 677-21-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (hydrosilylation of, mechanism of)
 IT 677-21-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (hydrosilylation of, mechanism of)
 RN 677-21-4 HCPLUS
 CN 1-Propene, 3,3,3-trifluoro- (CA INDEX NAME)



=> d ibib ab hitstr 38-39

YOU HAVE REQUESTED DATA FROM FILE 'CASREACT, CHEMINFORMRX, HCPLUS, USPATFULL, WPIX, JAPIO, SCISEARCH' - CONTINUE? (Y)/N:y

L135 ANSWER 38 OF 66 USPATFULL on STN

ACCESSION NUMBER: 1999:19386 USPATFULL Full-text
 TITLE: Process for preparing fluoroalkyl-containing
 organosilicon compounds, and their use
 INVENTOR(S): Jenker, Peter, Rheinfelden, Germany, Federal Republic
 of
 Frings, Albert-Johannes, Rheinfelden, Germany, Federal
 Republic of
 Horn, Michael, Rheinfelden, Germany, Federal Republic
 of
 Monkiewicz, Jaroslaw, Rheinfelden, Germany, Federal
 Republic of
 Standke, Burkhard, Loerrach, Germany, Federal Republic
 of
 PATENT ASSIGNEE(S): Huels Aktiengesellschaft, Marl, Germany, Federal
 Republic of (non-U.S. corporation)

NUMBER	KIND	DATE
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PATENT INFORMATION: US 5869728 19990209 <--
 APPLICATION INFO.: US 1997-955290 19971021 (8) <--

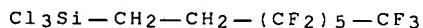
NUMBER	DATE	
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PRIORITY INFORMATION: DE 1996-19644561 19961026 <--
 DOCUMENT TYPE: Utility
 FILE SEGMENT: Granted
 PRIMARY EXAMINER: Shaver, Paul F.
 LEGAL REPRESENTATIVE: Oblon, Spivak, McClelland, Maier & Neustadt, P.C.
 NUMBER OF CLAIMS: 20
 EXEMPLARY CLAIM: 1
 LINE COUNT: 513

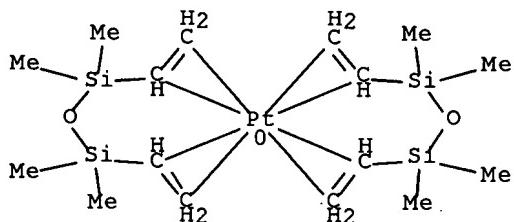
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Fluoroalkyl organosilicon compounds are prepared by reacting fluoroolefins with organosilicon compounds that contain at least one H--Si group, in the presence of a Pt(0) complex catalyst. Further, fluoroalkylalkoxy organosilicon compounds are prepared by esterifying fluoroalkyl organosilicon compounds. The process proceeds uniformly under mild conditions with high yields and selectivities.

IT 78560-45-9P
 (preparation of)
 RN 78560-45-9 USPATFULL
 CN Silane, trichloro(3,3,4,4,5,5,6,6,7,7,8,8-tridecafluorooctyl)- (CA INDEX NAME)

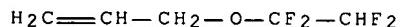


IT 81032-58-8
 (preparation of fluoroalkyl-containing organosilicon compds. via platinum catalyzed reaction of silicon-hydrogen bond containing organosilane with fluoro olefin)
 RN 81032-58-8 USPATFULL
 CN Platinum, bis[1,3-bis(η 2-ethenyl)-1,1,3-tetramethyldisiloxane]- (9CI) (CA INDEX NAME)

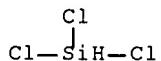


IT 1428-33-7, 1,1,2,2-Tetrafluoroethyl allyl ether
10025-78-2, Trichlorosilane 25291-17-2
 (preparation of fluoroalkyl-containing organosilicon compds. via platinum catalyzed reaction of silicon-hydrogen bond containing organosilane with fluoro olefin)
 RN 1428-33-7 USPATFULL

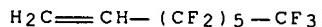
CN 1-Propene, 3-(1,1,2,2-tetrafluoroethoxy)- (CA INDEX NAME)



RN 10025-78-2 USPATFULL
 CN Silane, trichloro- (CA INDEX NAME)



RN 25291-17-2 USPATFULL
 CN 1-Octene, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro- (CA INDEX NAME)



L135 ANSWER 39 OF 66 USPATFULL on STN
 ACCESSION NUMBER: 84:33240 USPATFULL Full-text
 TITLE: Process for preparing tetrafluoroethoxyalkyl silanes
 INVENTOR(S): Zeller, Norbert, Burghausen, Germany, Federal Republic
 of
 Riedle, Rudolf, Burghausen, Germany, Federal Republic
 of
 Lindner, Tassilo, Mehring-Oed, Germany, Federal
 Republic of
 Wagner, Wolfgang, Tokyo, Japan
 PATENT ASSIGNEE(S): Wacker Chemie GmbH, Munich, Germany, Federal Republic
 of (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4454331		19840612 <--
APPLICATION INFO.:	US 1982-401785		19820726 (6) <--

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1981-3138236	19810925 <--
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Shaver, Paul F.	
NUMBER OF CLAIMS:	5	
EXEMPLARY CLAIM:	1	
LINE COUNT:	265	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to a process for preparing tetrafluoroethoxyalkyl silanes by the addition of silanes containing Si-bonded hydrogen to tetrafluoroethyl-alkenylether in a tubular reactor in which the reaction

mixture containing an excess of silanes is recycled at a rate of at least 10 meters per minute.

IT 10025-78-2

(hydrosilylation by, of allyl ethers)

RN 10025-78-2 USPATFULL

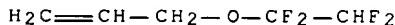
CN Silane, trichloro- (CA INDEX NAME)

IT 1428-33-7

(hydrosilylation of)

RN 1428-33-7 USPATFULL

CN 1-Propene, 3-(1,1,2,2-tetrafluoroethoxy)- (CA INDEX NAME)



=> d iall abeq tech abex fraghitstr 40-62

YOU HAVE REQUESTED DATA FROM FILE 'CASREACT, CHEMINFORMRX, HCPLUS, USPATFULL, WPIX, JAPIO, SCISEARCH' - CONTINUE? (Y)/N:y

L135 ANSWER 40 OF 66 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
 ACCESSION NUMBER: 2003-523180 [49] WPIX
 DOC. NO. CPI: C2003-140777 [49]
 TITLE: Preparation of compounds containing silicon
 -carbon bonds involves reacting hydridoalkoxysilane with
 olefin in the presence of platinum
catalyst and weakly nucleophilic amine
 DERWENT CLASS: E11
 INVENTOR: CHILDRESS R S; CHILDRESS S R; FILIPKOWSKI M A; HALE M B;
 HIMMELDIRK R S; WESTMEYER M D; CHILDRESS S; FILIPKOWSKI
 M; HALE M; HIMMELDIRK R; WESTMEYER M
 PATENT ASSIGNEE: (CROM-N) CROMPTON CORP; (GENE-C) GENERAL ELECTRIC CO
 COUNTRY COUNT: 36

PATENT INFORMATION:

PATENT NO	KIND DATE	WEEK	LA	PG	MAIN IPC	
WO 2003044028	A1 20030530 (200349)*	EN	31[0]			<--
US 6590117	B1 20030708 (200353)	EN				<--
EP 1448573	A1 20040825 (200456)	EN				<--
BR 2002014261	A 20040921 (200470)	PT				<--
JP 2005509684	W 20050414 (200527)	JA	28			
CN 1615313	A 20050511 (200558)	ZH				
KR 2005036899	A 20050420 (200637)	KO				
EP 1448573	B1 20070418 (200729)	EN				
DE 60219667	E 20070531 (200736)	DE				

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION DATE
WO 2003044028 A1		<u>WO 2002-US32826 20021015</u>
US 6590117 B1		<u>US 2001-4156 20011115</u>
BR 2002014261 A		<u>BR 2002-14261 20021015</u>
CN 1615313 A		<u>CN 2002-827087 20021015</u>
EP 1448573 A1		<u>EP 2002-778555 20021015</u>
EP 1448573 B1		<u>EP 2002-778555 20021015</u>
EP 1448573 A1		<u>WO 2002-US32826 20021015</u>
BR 2002014261 A		<u>WO 2002-US32826 20021015</u>
JP 2005509684 W		<u>WO 2002-US32826 20021015</u>
KR 2005036899 A		<u>WO 2002-US32826 20021015</u>
EP 1448573 B1		<u>WO 2002-US32826 20021015</u>
JP 2005509684 W		<u>JP 2003-545665 20021015</u>
KR 2005036899 A		<u>KR 2004-707414 20040514</u>
DE 60219667 E		<u>DE 2002-619667 20021015</u>
DE 60219667 E		<u>EP 2002-778555 20021015</u>
DE 60219667 E		<u>WO 2002-US32826 20021015</u>

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1448573	A1	Based on
BR 2002014261	A	WO 2003044028
JP 2005509684	W	WO 2003044028
KR 2005036899	A	WO 2003044028
EP 1448573	B1	WO 2003044028
DE 60219667	E	EP 1448573
DE 60219667	E	WO 2003044028

PRIORITY APPLN. INFO: US 2001-4156 20011115

INT. PATENT CLASSIF.:

MAIN: C07F007-08; C07F007-18

SECONDARY: C07F007-14IPC ORIGINAL: C07F0007-00 [I,C]; C07F0007-14 [I,A];
C07F0007-18 [I,A]; C07F0007-00 [I,C]; C07F0007-14
[I,A]; C07F0007-18 [I,A]IPC RECLASSIF.: C07B0061-00 [I,A]; C07B0061-00 [I,C]; C07F0007-00 [I,C];
C07F0007-08 [I,A]; C07F0007-18 [I,A]

BASIC ABSTRACT:

WO 2003044028 A1 UPAB: 20060119

NOVELTY - Compounds containing silicon-carbon bonds are prepared by reacting hydridoalkoxysilane with olefin in the presence of platinum catalyst and a weakly nucleophilic amine.DETAILED DESCRIPTION - Preparation of compounds containing silicon-carbon bonds involves reacting hydridoalkoxysilane with olefin in the presence of platinum catalyst and a weakly nucleophilic amine of formula NZ1ZZZ3.

Z1 = aryl, alkaryl, or aralkyl group of 6-20C or organosilyl substituent of formula SiR3;

R = 1-20C alkyl or 6-10C aryl;

Z2 = H, 1-20C alkyl, aryl, alkaryl, or 6-20C aralkyl, or SiR3;

Z3 = Z1 or Z2.

Optionally two of Z1, Z2, or Z3 taken together with the nitrogen atom form an aromatic heterocyclic ring.

USE - For preparing compounds containing silicon-carbon bonds.

ADVANTAGE - The invention improves the reactivity and selectivity of

the transition metal-catalyzed hydrosilation reactions of olefins, and exhibits improved yields and selectivities with respect to the desired reaction products. It allows the use of lower molar excess of olefins due to reduction of competing olefin isomerization side-reaction.

MANUAL CODE: CPI: E05-E01; E05-E02; E05-E03; E06-F04; E06-H; E07-D04C; E07-H; E10-B04; E10-G02H2B; E10-H01D; E10-H01E; E10-J02C4; N02-F; N05-B; N05-C; N05-D

TECH

ORGANIC CHEMISTRY - Preferred Process: The reaction is conducted at ambient temperature to 150degreesC and 0.2-2 atm. A molar excess of olefin relative to the hydridoalkoxysilane is employed in the reaction.

Preferred Component: The hydridoalkoxysilane corresponds to formula R'ⁿX₃-nSiH. It can be tri-n-propoxysilane, triisopropoxysilane, methyldimethoxysilane, methyldiethoxysilane, dimethylmethoxysilane, dimethylethoxysilane, or preferably trimethoxysilane or triethoxysilane. The olefin is ethylene, propylene, butene, pentene, hexene, octene, hexadecene, octadecene, trivinylcyclohexene, 2-methylpropene, 2-methylbutene, diisobutylene, tert. amylene, 2-butene, vinylcyclohexene monoxide, allyl glycidyl ether, allyl esters, allyl tert. amines and their methallyl derivatives, N-allylaniline, N,N-dimethylallylamine, N-ethylmethallylamine, vinyl esters and ethers, vinylsilanes, or (meth)acrylates. It can be ethylene, propylene, butene, pentene, hexene, octene, hexadecene (preferably), octadecene, trivinylcyclohexene, 2-methylpropene, 2-methylbutene, or diisobutylene. It may be amino olefin. The weakly nucleophilic amine is aniline, hexamethyldisilazane, phenothiazine, aminonaphthalene, benzylamine, pyridine, or their derivatives.

R' = optionally branched 1-18C alkyl, cyclic alkyl group of 4-8 carbon or aryl, alkaryl, or 6-12C aralkyl, optionally containing halo, O, or N substituents;

X = -OR, preferably ethoxy or methoxy;

n = 0-2.

The substituents do not interfere with hydrosilation or promotion.

Preferred Composition: The weakly nucleophilic amine is used at 25-20000 ppm by weight of the combined weight of hydridoalkylsilane and olefin.

POLYMERS - Preferred Component: The olefin can be allyl polyethers.

INORGANIC CHEMISTRY - Preferred Component: The platinum catalyst is chloroplatinic acid.

ABEX EXAMPLE - A reaction was conducted using 10% molar excess 4-vinylcyclohexene monoxide versus trimethoxysilane, amine promoter (640 ppm), and 10 ppm platinum as a solution of chloroplatinic acid at 90degreesC followed by 1 hour at 90degreesC after the addition was completed. The product had 92.2%.

AN.S DCR-129547

CN.P PLATINIC CHLORIDE

SDCN R01998

SDRN 1998

CM 1

Cl

CM 2

Pt

CM 3

C1

AN.S DCR-200553

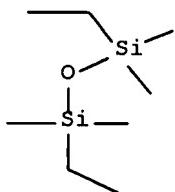
CN.S 1,1,3,3-Tetramethyl-1,3-divinyl-disiloxane platinum (O);
PLATINUM-1,3-DIVINYL-1,1,3,3-TETRAMETHYLDISILOXANE COMPLEX

SDCN RA00AL

CM 1

Pt

CM 2



AN.S DCR-132606

CN.P PLATINUM(IV)-ION
SDCN R12939

AN.S DCR-133403

CN.P PLATINUM(II)-ION
SDCN R15854

AN.S DCR-140

CN.P PLATINUM
SDCN R03247

L135 ANSWER 41 OF 66 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
 ACCESSION NUMBER: 2002-187742 [24] WPIX
 DOC. NO. CPI: C2002-057899 [24]
 TITLE: Preparation of organosilane functionalized in the three position, i.e. chloropropyltrichlorosilane, involves reacting allyl compound with silane in reaction column in the presence of heterogeneous platinum catalyst
 DERWENT CLASS: E11
 INVENTOR: BATZ-SOHN C; SONNENSCHEIN R
 PATENT ASSIGNEE: (BATZ-I) BATZ-SOHN C; (SONN-I) SONNENSCHEIN R
 COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND DATE	WEEK	LA	PG	MAIN IPC
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APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 20020008011	A1 Provisional	US 2000-192575P	20000328
US 20020008011	A1	US 2001-818997	20010328

PRIORITY APPLN. INFO: US 2001-818997 20010328
US 2000-192575P 20000328

INT. PATENT CLASSIF.:

IPC RECLASSIF.: B01D0003-00 [I,A]; B01D0003-00 [I,C]; C07F0007-00 [I,C];
C07F0007-08 [I,A]; C07F0007-14 [I,A];
C07F0007-18 [I,A]

BASIC ABSTRACT:

US 20020008011 A1 UPAB: 20050525

NOVELTY - An organosilane functionalized in the three position is prepared by reacting an allyl compound with silane in a reaction column at 1-25 bar in the presence of a heterogeneous platinum catalyst.

DETAILED DESCRIPTION - Preparation of organosilane functionalized in the 3 position, i.e. chloropropyltrichlorosilane, involves reacting an allyl compound of formula (I) H2C=CH-CH2X with a silane of formula (II) R2R3R4SiH in a reaction column at 1-25 bar in the presence of a heterogeneous platinum catalyst.

R2, R3, R4 = H, halo, 1-6C (halo)alkyl, 3-6C allyl, 1-4C alkoxy, Ph, aryl, or aralkyl;

X = I, Cl, Br, F, CN, SCN, SH, OH, SR, NRR1, OR; and
R, R1 = 1-6C alkyl, 3-7C allyl.

USE - For preparing of organosilane functionalized in the 3 position.

ADVANTAGE - The invention does not contain undesirable quantities of allyl chloride.

MANUAL CODE: CPI: E05-E01; E05-E02; E05-E02D
TECH

ORGANIC CHEMISTRY - Preferred Method: Distillation takes place simultaneously with the reaction in the reaction column including a reaction zone with two separation zones. A first product exits a first end of the reaction zone and a second product exits a second end of the reaction zone. Unreacted silane in the first product is condensed and at least a portion of it is reintroduced into the reaction zone. A portion of the second product is vaporized and at least a portion of the vaporized stream is reintroduced into the reaction zone. Preferred Component: The silane is present in a stoichiometric excess with respect to the allyl compound.

ABEX SPECIFIC COMPOUNDS - The organosilane functionalized in the 3 position is chloropropyltrichlorosilane. The allyl compound is allyl chloride. The silane is trichlorosilane.

EXAMPLE - Trichlorosilane and allyl chloride were supplied to a reaction zone of the reaction column. The reaction zone was provided with a heterogeneous platinum containing catalyst packing. A very high trichlorosilane excess was attained and the heat of reaction was used for the evaporation. The product mixture exiting the reaction column was almost entirely free of allyl chloride starting material. Lower concentrations of allyl chloride showed in the final product streams indicating that the starting material was completely reacted in the reaction column.

AN.S DCR-140
CN.P PLATINUM
SDCN R03247

L135 ANSWER 42 OF 66 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
 ACCESSION NUMBER: 2002-685555 [74] WPIX
 DOC. NO. CPI: C2002-194183 [74]
 TITLE: Preparation of fluoro-containing organosilicon compound, useful as surface treating agent, comprises reacting fluoro-containing olefin with trichlorosilane using a platinum catalyst treated with dimethylchlorosilane
 DERWENT CLASS: E11; G02
 INVENTOR: KUBOTA T; TONOMURA Y
 PATENT ASSIGNEE: (SHIE-C) SHINETSU CHEM IND CO LTD
 COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
JP 2002205995	A	20020723	(200274)*	JA	4[0]		<--
JP 3861973	B2	20061227	(200703)	JA	6		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 2002205995 A		<u>JP 2001-1004</u>	<u>20010109</u>
JP 3861973 B2		<u>JP 2001-1004</u>	<u>20010109</u>

FILING DETAILS:

PATENT NO	KIND	PATENT NO
JP 3861973	B2	Previous Publ JP 2002205995 A

PRIORITY APPLN. INFO: JP 2001-1004 20010109

INT. PATENT CLASSIF.:

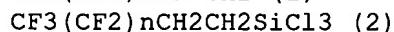
IPC ORIGINAL: C07F0007-00 [I,C]; C07F0007-12 [I,A]
 IPC RECLASSIF.: C07B0061-00 [I,A]; C07B0061-00 [I,C]; C07F0007-00 [I,C];
 C07F0007-12 [I,A]

BASIC ABSTRACT:

JP 2002205995 A UPAB: 20050527

NOVELTY - Preparation of a fluoro-containing organosilicon compound (2) comprises reacting a fluoro -containing olefin (1) with trichlorosilane in the presence of a divalent or tetravalent platinum catalyst treated with dimethylchlorosilane.

DETAILED DESCRIPTION - Preparation of a fluoro -containing organosilicon compound of formula (2) comprises reacting a fluoro-containing olefin of formula (1) with trichlorosilane in the presence of a divalent or tetravalent platinum catalyst treated with dimethylchlorosilane.



n = 3-9.

USE - (2) is used as a surface treating agent for materials.

ADVANTAGE - (2) with a high yield can be safely and efficiently prepared in a relatively short time on an industrial scale. MANUAL CODE:

CPI: E05-E02D; E11-F; G02-A05; N02-F; N05-E01;

N07-D

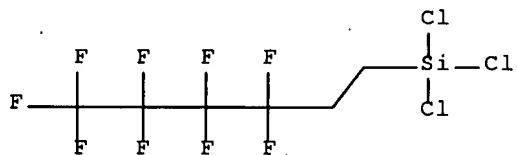
ABEX EXAMPLE - A mixture of 3,3,4,4,5,5,6,6,6-nonafluorohexene (246.1 g, 1.0

mol) and 20 wt.% chloroplatinic acid isopropanol solution (0.10 g) at 50 degrees C was added with dimethylchlorosilane (0.95 g, 0.01 mol) and added dropwise with trichlorosilane (149.1 g, 1.1 mol) over 5 hours. The mixture was stirred at 70 degrees C for 2 hours and distilled to give 3,3,4,4,5,5,6,6,6-nonafluorohexyltrichlorosilane (358.1 g, 93.9 % yield) as a fraction having a boiling point of 98-100 degrees C/13 kPa.

AN.S DCR-335815

CN.S Trichloro-(3,3,4,4,5,5,6,6,6-nonafluoro-hexyl)-silane

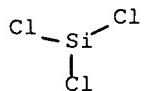
SDCN RA2SW4



AN.S DCR-356

CN.P TRICHLOROSILANE

SDCN R03423

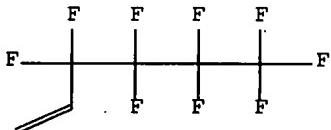


AN.S DCR-134937

CN.P PER-FLUOROBUTYLETHYLENE

CN.S 3,3,4,4,5,5,6,6,6-Nonafluoro-hex-1-ene

SDCN R21880



AN.S DCR-129547

CN.P PLATINIC CHLORIDE

SDCN R01998

SDRN 1998

CM 1

Cl

CM 2

Pt

CM 3

C1

L135 ANSWER 43 OF 66 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
 ACCESSION NUMBER: 2003-231952 [23] WPIX
 DOC. NO. CPI: C2003-059771 [23]
 TITLE: Preparation of organosilicon compound used as coupling agent, starting material and additive comprises hydrosilylation reaction between unsaturated compounds and silane compounds in presence of platinum and auxiliary catalyst
 DERWENT CLASS: A41; A60; E11
 INVENTOR: TACHIKAWA M; TACHIKAWA M D C A L; TAKEI K; TAKEI K D C A L
 PATENT ASSIGNEE: (DOWO-C) DOW CORNING ASIA LTD
 COUNTRY COUNT: 25

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
EP 1266903	A1	20021218	(200323)*	EN	19[0]	<--
EP 1266903	B1	20040929	(200464)	EN		<--
DE 60105986	E	20041104	(200474)	DE		<--
DE 60105986	T2	20051006	(200566)	DE		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 1266903 A1		EP 2001-305206	20010615
DE 60105986 E		DE 2001-60105986	20010615
DE 60105986 T2		DE 2001-60105986	20010615
DE 60105986 E		EP 2001-305206	20010615
DE 60105986 T2		EP 2001-305206	20010615

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 60105986 E	Based on	EP 1266903 A
DE 60105986 T2	Based on	EP 1266903 A

PRIORITY APPLN. INFO: EP 2001-305206 20010615

INT. PATENT CLASSIF.:

MAIN: C07F007-14

SECONDARY: C07F007-18

IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-14 [I,A]

BASIC ABSTRACT:

EP 1266903 A1 UPAB: 20060119

NOVELTY - An organosilicon compound is prepared by effecting a hydrosilylation reaction between unsaturated compounds with unsaturated

groups, and silane compounds in the presence of a platinum catalyst and an auxiliary catalyst.

DETAILED DESCRIPTION - Preparation of an organosilicon compound includes effecting a hydrosilylation reaction between unsaturated compounds with unsaturated groups, and silane compounds of formula $\text{HSiR}_0\text{mW}3-\text{m}$ in the presence of a platinum catalyst and an auxiliary catalyst. The auxiliary catalyst is silyl esters of acids derived from oxo acids of sulfur; amide compounds having nitrogen-silicon (N-Si) bonds; urea compounds; silyl esters of carbamic acid; phosphoric acid compounds; and cyclic compounds from hydroxypyridine compounds of formula (i), 8-hydroxyquinoline compounds of formula (ii), oxazolidinone compounds of formula (iii), or N-hydroxysuccinimide compounds of formula (iv).

$\text{W} = 1-6\text{C alkoxy, } 6-10\text{C aryloxy, or halo;}$

$\text{R}_0 = \text{organic group;}$

$\text{m} = 0, 1, \text{ or } 2;$

$\text{R}_9-\text{R}_{14} = \text{H, halo, } 1-10\text{C alkyl, } 6-10\text{C aryl, } 1-10\text{C alkoxy, or } \text{R}_2\text{Si}-;$

$\text{R}_2 = 1-10\text{C hydrocarbon, } 1-10\text{C alkoxy, } \underline{\text{Cl}}, \text{ or H with a maximum of two hydrogen atoms present; and}$

$\text{X} = \text{H or R}_2\text{Si.}$

USE - The inventive method is for preparing an organosilicon compound. The organosilicon compound is used as a silane coupling agent, as a starting material for various silicon compounds, as an additive, and as a starting material for various organosilicon polymers.

ADVANTAGE - The inventive method satisfactorily increases the proportion of a target product over the proportion of by-products. It efficiently produces the target products (beta-hydrosilylated products) compared to conventional methods, or can preferentially (selectively) produce the product (beta-hydrosilylated product or terminal hydrosilylated product) over by-products.

MANUAL CODE: CPI: A01-A03; A08-M01D; E05-E; E11-F; N02-F;
N05-D; N05-E01; N05-E02; N07-D

TECH

ORGANIC CHEMISTRY - Preferred Component: The auxiliary catalyst is an *in situ* formed auxiliary catalyst formed from a metal salt compound. It comprises 0.01-20 (preferably 0.05-10) wt.%, relative to the total weight of the unsaturated compound and the silane compound. The unsaturated compound is styrene or styrene derivative, or allyl compounds. The silane compound is trimethoxysilane, triethoxysilane, methylmethoxysilane, dimethylmethoxysilane, methyldiethoxysilane, dimethylethoxysilane, dimethylchlorosilane, methyldichlorosilane, or trichlorosilane. The cyclic compounds are 2-hydroxypyridine, 8-hydroxyquinoline, oxazolidinone, 3-trimethylsilyl-2-oxazolidinone, or N-hydroxysuccinimide. The silyl esters of acids are of formula: $\text{R}_1\text{S}(=\text{O})_2\text{OSiR}_2\text{I}$, preferably silyl esters of alkylsulfonic acids or silyl esters of arylsulfonic acids. The amide compounds are of formula: $\text{R}_3\text{C}(=\text{O})\text{NR}_4\text{SiR}_2\text{I}$, preferably N-dialkylsilylacetamides or N-alkylsilyl-N-alkylacetamides. The urea compounds are of formula: $\text{R}_5\text{R}_6\text{NC}(=\text{O})\text{NR}_4\text{X}_1$, preferably urea or $\text{N},\text{N}'\text{-bis}(\text{trialkylsilyl})\text{ureas}$. The silyl esters of carbamic acid are of formula: $\text{R}_7\text{R}_8\text{NC}(=\text{O})\text{OSiR}_2\text{I}$, preferably $\text{trialkylsilyl-N,N-dialkylcarbamate}$. The phosphoric acid compounds are of formula: $(\text{R}_1\text{O})_3\text{P}(=\text{O})$, preferably $\text{trialkyl phosphate}$. $\text{R}_1 = 1-10\text{C alkyl, } 6-18\text{C aryl, or } \text{R}_1\text{H};$ $\text{R}_18 = 1-10\text{C alkyl, } 6-18\text{C aryl, H with a one H atom present, } 1-10\text{C haloalkyl, } 6-18\text{C haloaryl, halo, } 1-10\text{C alkoxy, or siloxy of formula: }$ R_30SiO_3- ; $\text{R}_30 = 1-6\text{C alkyl; R}_21 = 1-10\text{C hydrocarbon, } 1-10\text{C alkoxy, } \underline{\text{Cl}}, \text{ H with a maximum of two H atoms present, or } \text{R}_1\text{S}(=\text{O})_2\text{O}-;$ $\text{R}_3 = 1-10\text{C alkyl, } 6-18\text{C aryl, } 1-10\text{C haloalkyl, } 6-18\text{C haloaryl;}$ $\text{R}_4 = 1-10\text{C hydrocarbon, or H;}$ $\text{R}_22 = 1-10\text{C hydrocarbon, } 1-10\text{C alkoxy, } \underline{\text{Cl}}, \text{ H with a maximum of }$

two H atoms present, or R3C(=O)NR4;
 R5, R6 = H, 1-10C haloalkyl, 6-18C haloaryl, or silyl of formula R3Si-;
 R = 1-3C alkyl, or H with a maximum of two H atoms present;
 X1 = H, R233Si-;
 R23 = 1-10C hydrocarbon, 1-10C alkoxy, C1, H with a maximum of
 two H atoms present, or R5R6NC(=O)-;
 R7, R8 = 1-10C alkyl, 6-18C aryl, or H with a maximum of one H atom
 present;
 R24 = 1-10C hydrocarbon, 1-10C alkoxy, C1, H with a maximum of
 two H atoms present, or R7R8NC(=O)-;
 R16 = H with a maximum of two H atoms present, 1-10C alkyl, 6-18C aryl,
 1-10C haloalkyl, 6-18C haloaryl, or a maximum of two silyl groups of
 formula R253Si-;
 R25 = 1-10C hydrocarbon, 1-10C alkoxy, C1, H atoms with a
 maximum of two H atoms present, or (R15O)2P(=O)O-; and
 R15 = H with a maximum of two H atoms present, 1-10C alkyl, 6-18C aryl,
 1-10C haloalkyl, or 6-18C haloaryl.

ABEX EXAMPLE - Reaction between styrene and triethoxysilane with platinum catalyst in the presence of trimethylsilyl methanesulfonate, styrene ((356 mg) and triethoxysilane (562 mg) were introduced into a glass tube. Trimethylsilylmethanesulfonate ((CH₃)₃SiOSO₂CH₃) was added using a microsyringe. Toluene solution (0.005 ml (4.3 mg)) of an O-valent platinum complex of divinyltetramethyldisiloxane (0.04 wt.% platinum content) was added. The tube was sealed with Teflon (RTM: polytetrafluoroethylene) tape and a rubber septum, and placed in 80degreesC oil bath and heated for 2 hours. After cooling, the tube contents were analyzed by gas chromatography, revealing a styrene conversion of 10% and a hydrosilylated product yield of 9.5%. The ratio between the terminal hydrosilylated product (phenethyltriethoxysilane) and the interior hydrosilylated product (alpha(triethoxysilyl)ethylbenzene) was 53:1.

AN.S DCR-200553

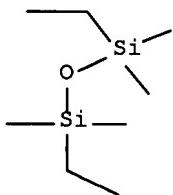
CN.S 1,1,3,3-Tetramethyl-1,3-divinyl-disiloxane platinum (O);
 PLATINUM-1,3-DIVINYL-1,1,3,3-TETRAMETHYLDISILOXANE COMPLEX

SDCN RA00AL

CM 1

Pt

CM 2



DOC. NO. CPI: C2000-152152 [46]
 DOC. NO. NON-CPI: N2000-375143 [46]
 TITLE: Production of organosilicon compounds containing approximatelya,approximatelyb-unsaturated carboxylic acid groups comprises reaction of an Si-H containing organosilicon compound with an olefinically unsaturated compound.
 DERWENT CLASS: A26; A41; E11; G02; L03; P81; U11
 INVENTOR: HABERLE N; HAEBERLE N; HANELT E; SANDMEYER F; SCHINDLER W
 PATENT ASSIGNEE: (CONE-C) CONSORTIUM ELEKTROCHEM IND GMBH
 COUNTRY COUNT: 29

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
EP 1024143	A2	20000802	(200046)*	DE	18[0]	<--
DE 19903333	A1	20000810	(200046)	DE		<--
CA 2297224	A1	20000728	(200051)	EN		<--
CZ 2000000334	A3	20000913	(200054)	CS		<--
JP 2000229985	A	20000822	(200055)	JA	16	<--
KR 2000053626	A	20000825	(200121)	KO		<--
EP 1024143	B1	20020109	(200211)	DE		<--
DE 59900739	G	20020228	(200216)	DE		<--
ES 2170569	T3	20020801	(200263)	ES		<--
US 6486338	B1	20021126	(200281)	EN		<--
JP 3447642	B2	20030916	(200362)	JA	16	<--
CA 2297224	C	20040406	(200425)	EN		<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 1024143	A2	<u>EP 1999-125908 19991223</u>	
DE 19903333	A1	<u>DE 1999-19903333 19990128</u>	
DE 59900739	G	<u>DE 1999-59900739 19991223</u>	
DE 59900739	G	<u>EP 1999-125908 19991223</u>	
ES 2170569	T3	<u>EP 1999-125908 19991223</u>	
JP 2000229985	A	<u>JP 2000-16143 20000125</u>	
JP 3447642	B2	<u>JP 2000-16143 20000125</u>	
US 6486338	B1	<u>US 2000-491034 20000125</u>	
CA 2297224	A1	<u>CA 2000-2297224 20000126</u>	
CA 2297224	C	<u>CA 2000-2297224 20000126</u>	
KR 2000053626	A	<u>KR 2000-3700 20000126</u>	
CZ 2000000334	A3	<u>CZ 2000-334 20000128</u>	

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 59900739	G	Based on EP 1024143 A
ES 2170569	T3	Based on EP 1024143 A
JP 3447642	B2	Previous Publ JP 2000229985 A

PRIORITY APPLN. INFO: DE 1999-19903333 19990128

INT. PATENT CLASSIF.:

MAIN: C07F007-08
 SECONDARY: C07F007-18; C07F007-21; C08F299-00; C08G077-38
 IPC RECLASSIF.: B01J0027-06 [I,C]; B01J0027-10 [I,A]; C07B0061-00 [I,A];
 C07B0061-00 [I,C]; C07F0007-00 [I,C]; C07F0007-08 [I,A];

C07F0007-14 [I,A]; C07H0023-00 [I,A]; C07H0023-00
 [I,C]; C08G0077-00 [I,C]; C08G0077-04 [I,A]; C09F0007-00
 [I,C]; C09F0007-02 [I,A]; C09F0007-12 [I,A]; C09K0019-40
 [I,A]; C09K0019-40 [I,C]

BASIC ABSTRACT:

EP 1024143 A2 UPAB: 20050705

NOVELTY - Process for the production of organosilicon compounds that contain alpha,beta-unsaturated carboxylic acid group comprises reaction of an organosilicon compound containing Si-H bonds, with an olefinically unsaturated compound in the presence of a platinum catalyst followed by elimination.

DETAILED DESCRIPTION - A process for the production of organosilicon compounds (I), that contain alpha,beta-unsaturated carboxylic acid groups of formula (1), comprises (A) reaction of an organosilicon compound (II), that contains Si atoms directly bonded to H atoms, with an olefinically unsaturated compound, that contains terminal double or triple bonds of formula (2) in the presence of a platinum metal or compound catalyst to form an organosilicon compound (III) that contains groups of formula (3) and (B) elimination of H-Z from the organosilicon compound (III).

INDEPENDENT CLAIMS are included for:

- (i) a composition (IV) containing the organosilicon compound (I)
- (ii) a polymer prepared from the organosilicon compound (I) or the composition (IV); and
- (iii) an optically anisotropic layers prepared by orientation and polymerization of the organosilicon compound (I) or the composition (IV).

-A-O-C(O)-CR=CH₂ (1)

OMEGA-O-C(O)-CRH-CH₂Z (2)

-A-O-C(O)-CRH-CH₂Z (3)

A = a divalent organic group;

OMEGA = a monovalent organic group having a terminal double or triple bond;

R = H or methyl;

Z = Cl, I, Br or 4-methyltoluene sulfonyl

USE - The process is useful for the production of organosilicon compounds containing alpha,beta-unsaturated carboxylic acid groups.

ADVANTAGE - The process has a high selectivity. MANUAL CODE:

CPI: A01-A03; A06-A00E4; A10-E01; A12-L03B; E05-E;

G02-A05; L03-D01D1; **N02-F**

EPI: U11-A01F

Member(0001)

ABEQ DE 19903333 A1 UPAB 20050705

NOVELTY - Process for the production of organosilicon compounds that contain alpha,beta-unsaturated carboxylic acid group comprises reaction of an organosilicon compound containing Si-H bonds, with an olefinically unsaturated compound in the presence of a platinum catalyst followed by elimination.

DETAILED DESCRIPTION - A process for the production of organosilicon compounds (I), that contain alpha,beta-unsaturated carboxylic acid groups of formula (1), comprises (A) reaction of an organosilicon compound (II), that contains Si atoms directly bonded to H atoms, with an olefinically unsaturated compound, that contains terminal double or triple bonds of formula (2) in the presence of a platinum metal or compound catalyst to form an organosilicon compound (III) that contains groups of formula (3) and (B) elimination of H-Z from the organosilicon compound (III).

INDEPENDENT CLAIMS are included for:

- (i) a composition (IV) containing the organosilicon compound (I)
- (ii) a polymer prepared from the organosilicon compound (I) or the composition (IV); and
- (iii) an optically anisotropic layers prepared by orientation and

polymerization of the organosilicon compound (I) or the composition (IV).

-A-O-C(O)-CR=CH₂ (1)

OMEGA-O-C(O)-CRH-CH₂Z (2)

-A-O-C(O)-CRH-CH₂Z (3)

A = a divalent organic group;

OMEGA = a monovalent organic group having a terminal double or triple bond;

R = H or methyl;

Z = Cl, I, Br or 4-methyltoluene sulfonyl

USE - The process is useful for the production of organosilicon compounds containing alpha,beta-unsaturated carboxylic acid groups.

ADVANTAGE - The process has a high selectivity.

Member(0005)

ABEQ JP 2000229985 A UPAB 20050705

NOVELTY - Process for the production of organosilicon compounds that contain alpha,beta-unsaturated carboxylic acid group comprises reaction of an organosilicon compound containing Si-H bonds, with an olefinically unsaturated compound in the presence of a platinum catalyst followed by elimination.

DETAILED DESCRIPTION - A process for the production of organosilicon compounds (I), that contain alpha,beta-unsaturated carboxylic acid groups of formula (1), comprises (A) reaction of an organosilicon compound (II), that contains Si atoms directly bonded to H atoms, with an olefinically unsaturated compound, that contains terminal double or triple bonds of formula (2) in the presence of a platinum metal or compound catalyst to form an organosilicon compound (III) that contains groups of formula (3) and (B) elimination of H-Z from the organosilicon compound (III).

INDEPENDENT CLAIMS are included for:

- (i) a composition (IV) containing the organosilicon compound (I)
- (ii) a polymer prepared from the organosilicon compound (I) or the composition (IV); and
- (iii) an optically anisotropic layers prepared by orientation and polymerization of the organosilicon compound (I) or the composition (IV).

-A-O-C(O)-CR=CH₂ (1)

OMEGA-O-C(O)-CRH-CH₂Z (2)

-A-O-C(O)-CRH-CH₂Z (3)

A = a divalent organic group;

OMEGA = a monovalent organic group having a terminal double or triple bond;

R = H or methyl;

Z = Cl, I, Br or 4-methyltoluene sulfonyl

USE - The process is useful for the production of organosilicon compounds containing alpha,beta-unsaturated carboxylic acid groups.

ADVANTAGE - The process has a high selectivity.

TECH

POLYMERS - Preferred Process: H-Z is eliminated in step (B) by means of a base. The organosiloxane (II) is prepared from at least units of formula (4) and is of formula (5). OMEGA is preferably R₃-Ao where R₃ is CH₂=CH-(CH₂)_n or HCC-(CH₂)_n where n=0-8 and optionally non-neighboring are replaced by O, dimethyl silyl, 1-4-substituted phenylene or cyclohexylene and Ao is a chemical bond or (CRH)_m- where m=0-12 and R is H or methyl and non-neighboring methylene groups are replaced by O, dimethyl silyl, 1-4-substituted phenylene or cyclohexylene. The organosiloxane (I) is prepared by hydrosilylation of mesogenic compounds with the organosilicon compound (II). The mesogenic compounds are of formula (6) or (7). (HpR₁qSiO(4-p-q)/2) (4) HsSiR₂t (5) R₃-X₁-(A₁-X₂)_d-R₅-O-C(O)-CH(R)-CH₂-Z (6) R₃-X₁-(A₁-X₂)_d-R₅-A₂ (7) R₁,R₂ = 1-10C alkyl or phenyl, optionally substituted by halogen;

p, q = 0-3;
 $p+q \leq 3$; $s,t=1-4$; $s+t \leq 4$; R5= a chemical bond or $(CH_2)_m$,
 optionally with non-neighboring methylene groups replaced by O,
 dimethylsilyl, 1-4-substituted phenylene or cyclohexylene; X1=a chemical
 bond or -O-, -C(O)O- or -OC(O)-; X2=a chemical bond or -O-, -C(O)O- or
 -OC(O)-, -CH₂CH₂-,-CH=N-, -N=CH-, -N=N-, C(O)NH-, -NHC(O)-, -CC-,
 -CH=CH-, -N=N(O)- or -OC(O)-; A1=1,4-phenylene, 1,4-cyclohexylene,
 2,5-pyridinylene, 2,5-pyranylene, 2,5-pyrimidinylene or
 5,2-(1,3-dioxanylene), optionally substituted by CN-, F or methyl
 or a is a bicyclic ring, preferably 2,6-, 2,7-- or 1,4-naphthylidene; A2=H,
 halogen, hydroxyl, nitrile, methacryloxy, methacrylethyleneoxy,
 cholesteryl, doristeryl, cyclohexyl or 1-10C alkylene, optionally with
 non-neighboring methylene groups replaced by O or dimethylsilyl

ABEX EXAMPLE - A mixture of 3-chloropropionic acid allyl ester (37.15 g, prepared by reaction of allyl alcohol and 3-chloropropionic acid chloride, 71 % yield) and pentamethylpentacyclosiloxane (15.48 g) in toluene (200 ml) was mixed with a 1% solution of hexachloroplatinic acid (0.94 ml) at 80 degreesC for 1 hour, followed by the addition triethylamine (75.9 g) and 2,6-di-tert-butyl-4-(dimethylamino methylene)-phenol. After 8 hours triethylammonium chloride precipitate was filtered off and the solution dried to remove solvent (to less than 0.5 %) to yield an organosiloxane (39.2 g) that contained 10 % higher oligomers.

AN.S DCR-140
 CN.P PLATINUM
 SDCN R03247

AN.S DCR-132606
 CN.P PLATINUM(IV)-ION
 SDCN R12939

AN.S DCR-2194
 CN.P PLATINIC CHLORIDE
 SDCN R01998; RA0B7E
 SDRN 1998

CM 1

C1

CM 2

Pt

CM 3

C1

L135 ANSWER 45 OF 66 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
 ACCESSION NUMBER: 1996-475726 [47] WPIX
 DOC. NO. CPI: C1996-148567 [47]
 TITLE: Catalysed hydrosilation of alkyne in
 presence of cyclo-alkadiene - using platinum
halide or organo-silicon-modified
platinum halide

DERWENT CLASS: E11
 INVENTOR: ROY A K

PATENT ASSIGNEE: (DOWO-C) DOW CORNING CORP
 COUNTRY COUNT: 6

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
US 5563287	A	19961008	(199647)*	EN	4[0]		<--
EP 785202	A1	19970723	(199734)	EN	6[0]		<--
JP 09216890	A	19970819	(199743)	JA	5[0]		<--
EP 785202	B1	20010704	(200138)	EN			<--
DE 69705432	E	20010809	(200153)	DE			<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 5563287 A		<u>US 1996-583728 19960117</u>	
DE 69705432 E		<u>DE 1997-69705432 19970115</u>	
EP 785202 A1		<u>EP 1997-100532 19970115</u>	
EP 785202 B1		<u>EP 1997-100532 19970115</u>	
DE 69705432 E		<u>EP 1997-100532 19970115</u>	
JP 09216890 A		<u>JP 1997-5458 19970116</u>	

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 69705432 E	Based on	EP 785202 A

PRIORITY APPLN. INFO: US 1996-583728 19960117

INT. PATENT CLASSIF.:

MAIN: C07F007-14IPC RECLASSIF.: B01J0027-06 [I,C]; B01J0027-13 [I,A]; C07B0061-00 [I,A];
 C07B0061-00 [I,C]; C07F0007-00 [I,C]; C07F0007-12 [I,A];
C07F0007-14 [I,A]

BASIC ABSTRACT:

US 5563287 A UPAB: 20050514

A process for hydrosilation of a alkyne comprises contacting at 40-150 °C an alkyne of formula R₁C≡CH with a hydrosilane of formula (R₂)_nHSiX_{3-n} in the presence of a platinum catalyst (C) and a 6-20C cycloalkadiene, in amount of 0.1-5 mol (6-20C) per g-atom of Pt in (C). (C) is selected from Pt halides and their reaction prods. with organosilicon cpds. having terminal aliphatic unsaturation. R₁ = H or 1-10C alkyl; R₂ = 1-20C alkyl or aryl; X = halogen; and n = 0-3.

ADVANTAGE - The cycloalkadiene catalyst modifier reduces formation of the bis-silylated adduct of the alkyne. MANUAL CODE: CPI: E05-E01; E05-E02; E10-J02A2; N02-F

Member(0003)

ABEQ JP 09216890 A UPAB 20050514

A process for hydrosilation of a alkyne comprises contacting at 40-150 °C an alkyne of formula R₁C≡CH with a hydrosilane of formula (R₂)_nHSiX_{3-n} in the presence of a platinum catalyst (C) and a 6-20C cycloalkadiene, in amt. of 0.1-5 mol (6-20C) per g-atom of Pt in (C). (C) is selected from Pt halides and their reaction prods. with organosilicon cpds. having terminal aliphatic unsaturation. R₁ = H or 1-10C alkyl; R₂ = 1-20C alkyl or aryl; X = halogen; and n = 0-3.

ADVANTAGE - The cycloalkadiene catalyst modifier reduces

formation of the bis-silylated adduct of the alkyne.

Member(0004)

ABEQ EP 785202 B1 UPAB 20050514

A process for hydrosilation of an alkyne comprises contacting at 40-150 °C an alkyne of formula R₁C≡CH with a hydrosilane of formula (R₂)_nH₂SiX_{3-n} in the presence of a platinum catalyst (C) and a 6-20C cycloalkadiene, in amt. of 0.1-5 mol (6-20C) per g-atom of Pt in (C). (C) is selected from Pt halides and their reaction prods. with organosilicon cpds. having terminal aliphatic unsaturation. R₁ = H or 1-10C alkyl; R₂ = 1-20C alkyl or aryl; X = halogen; and n = 0-3.

ADVANTAGE - The cycloalkadiene catalyst modifier reduces formation of the bis-silylated adduct of the alkyne.

L135 ANSWER 46 OF 66	WPIX COPYRIGHT 2007	THE THOMSON CORP on STN
ACCESSION NUMBER:	1996-401654 [40]	WPIX
DOC. NO. CPI:	C1996-126287 [40]	
TITLE:	Non-free radical <u>hydrosilation</u> of unsatd. monomers - by contacting a system containing <u>silicon</u> hydride gps., unsatd. monomer, transition metal <u>catalyst</u> and free radical polymerisation inhibitor.	
DERWENT CLASS:	A41; E11	
INVENTOR:	CAROTHERS T W; LEWIS L N	
PATENT ASSIGNEE:	(GENE-C) GENERAL ELECTRIC CO	
COUNTRY COUNT:	5	

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 5550272	A	19960827	(199640)*	EN	6[0]	<--
DE 19639351	A1	19970403	(199719)	DE	9[0]	<--
GB 2306166	A	19970430	(199720)	EN	19[0]	<--
FR 2739384	A1	19970404	(199722)	FR	20[0]	<--
JP 09194729	A	19970729	(199740)	JA	8[0]	<--
GB 2306166	B	19990609	(199925)	EN		<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 5550272 A		<u>US 1995-538149 19951002</u>	
DE 19639351 A1		<u>DE 1996-19639351 19960925</u>	
FR 2739384 A1		<u>FR 1996-11846 19960930</u>	
JP 09194729 A		<u>JP 1996-257255 19960930</u>	
GB 2306166 A		<u>GB 1996-20435 19961001</u>	
GB 2306166 B		<u>GB 1996-20435 19961001</u>	

PRIORITY APPLN. INFO: US 1995-538149 19951002

INT. PATENT CLASSIF.:

IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-08 [I,A]; C07F0007-14
 [I,A]; C07F0007-18 [I,A]; C08G0077-00 [I,C]; C08G0077-38
 [I,A]; C08K0005-00 [I,A]; C08K0005-00 [I,C]; C08L0083-00
 [I,C]; C08L0083-04 [I,A]; C08L0083-05 [I,A]; C08L0083-07
 [I,A]

BASIC ABSTRACT:

US 5550272 A UPAB: 20051007

A process for hydrosilating unsatd. monomers under non-free radical conditions comprises contacting (a) a system comprising at least one SiH gp; (b) an unsatd monomer; (c) a transition metal catalyst; and (d) a free radical polymerisation inhibitor.

USE - The hydrosilated cpds are used as functionalised precursors for incorporation into resin materials.

ADVANTAGE - The process results in a decrease in polymerisation and/or crosslinking.

MANUAL CODE: CPI: A01-A03; A01-E; A02-C; A06-A00D; A10-E; E05-G02; E05-M; E35-X

Member(0002)

ABEQ DE 19639351 A1 UPAB 20051007

A process for hydrosilating unsatd. monomers under non-free radical conditions comprises contacting (a) a system comprising at least one SiH gp; (b) an unsatd monomer; (c) a transition metal catalyst; and (d) a free radical polymerisation inhibitor.

USE - The hydrosilated cpds are used as functionalised precursors for incorporation into resin materials.

ADVANTAGE - The process results in a decrease in polymerisation and/or crosslinking.

Member(0004)

ABEQ FR 2739384 A1 UPAB 20051007

A process for hydrosilating unsatd. monomers under non-free radical conditions comprises contacting (a) a system comprising at least one SiH gp; (b) an unsatd monomer; (c) a transition metal catalyst; and (d) a free radical polymerisation inhibitor.

USE - The hydrosilated cpds are used as functionalised precursors for incorporation into resin materials.

ADVANTAGE - The process results in a decrease in polymerisation and/or crosslinking.

Member(0005)

ABEQ JP 09194729 A UPAB 20051007

A process for hydrosilating unsatd. monomers under non-free radical conditions comprises contacting (a) a system comprising at least one SiH gp; (b) an unsatd monomer; (c) a transition metal catalyst; and (d) a free radical polymerisation inhibitor.

USE - The hydrosilated cpds are used as functionalised precursors for incorporation into resin materials.

ADVANTAGE - The process results in a decrease in polymerisation and/or crosslinking.

Member(0006)

ABEQ GB 2306166 B UPAB 20051007

A process for hydrosilating unsatd. monomers under non-free radical conditions comprises contacting (a) a system comprising at least one SiH gp; (b) an unsatd monomer; (c) a transition metal catalyst; and (d) a free radical polymerisation inhibitor.

USE - The hydrosilated cpds are used as functionalised precursors for incorporation into resin materials.

ADVANTAGE - The process results in a decrease in polymerisation and/or crosslinking.

L135 ANSWER 47 OF 66 WPIX COPYRIGHT 2007

ACCESSION NUMBER: 1996-097125 [10] WPIX

DOC. NO. CPI: C1996-031389 [10]

TITLE: Hydrosilation especially unsatd. reactants where unsaturation is in internal portion of reactant's

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structure - comprises reaction of silicon hydride and unsatd. reactant in presence of platinum catalyst and using unsatd. alcohol(s) as an accelerator

DERWENT CLASS: E19
INVENTOR: BANK H M; DECKER G T
PATENT ASSIGNEE: (DOWO-C) DOW CORNING CORP
COUNTRY COUNT: 5

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 5486637	A	19960123	(199610)*	EN	6[0]	<--
EP 738730	A2	19961023	(199647)	EN	27[0]	<--
JP 08291181	A	19961105	(199703)	JA	7[0]	<--
EP 738730	A3	19970910	(199746)	EN		<--
EP 738730	B1	20020313	(200219)	EN		<--
DE 69619719	E	20020418	(200234)	DE		<--
JP 3771316	B2	20060426	(200629)	JA	10	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 5486637 A		<u>US 1995-425007 19950417</u>	
DE 69619719 E		<u>DE 1996-619719 19960409</u>	
EP 738730 A2		<u>EP 1996-302475 19960409</u>	
EP 738730 A3		<u>EP 1996-302475 19960409</u>	
EP 738730 B1		<u>EP 1996-302475 19960409</u>	
DE 69619719 E		<u>EP 1996-302475 19960409</u>	
JP 08291181 A		<u>JP 1996-95465 19960417</u>	
JP 3771316 B2		<u>JP 1996-95465 19960417</u>	

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 69619719	E Based on	EP 738730 A
JP 3771316	B2 Previous Publ	JP 8291181 A

PRIORITY APPLN. INFO: US 1995-425007 19950417

INT. PATENT CLASSIF.:

MAIN: C07F007-14
IPC ORIGINAL: B01J0031-16 [I,C]; B01J0031-22 [I,A]; C07F0007-00 [I,C];
C07F0007-14 [I,A]
IPC RECLASSIF.: B01J0023-42 [I,A]; B01J0023-42 [I,C]; B01J0031-16 [I,C];
B01J0031-22 [I,A]; C07B0061-00 [I,A]; C07B0061-00 [I,C];
C07F0007-00 [I,C]; C07F0007-08 [I,A]; C07F0007-14
[I,A]

BASIC ABSTRACT:

US 5486637 A UPAB: 20060111

Hydrosilation comprises contacting (A) silicon hydride of formula (I) ($R_1a(H)bSiX(4-a-b)$) and (B) an unsatd. reactant selected from (i) opt. substd. unsatd. organic cpds., and/or (ii) silicon cpds. comprising opt. substd. unsatd. organic substs., in presence of a platinum catalyst (VI) (platinum cpds. or platinum complexes) and an accelerator (unsatd. sec. or tert. alcohols of formula (II) and (III) or silylated unsatd. sec. or tert. alcohols of formula (IV) and (V)). In the formulae, R1 is 1-20C alkyl, 1-12 cycloalkyl or aryl; X is halo or OR1; a is 0-3; b is 1-3 and z+b is 1-4. R2 is H or 1-6C

alkyl; R3 is 1-6C alkyl; c and d are 0-3; c+d is 0-3; e and f is 1-4 and n is 0-10.

ADVANTAGE - Accelerators are useful for hydrosilation of unsatd. reactants where unsaturation is in internal portion of reactant's structure. They are moreover effective in presence or absence of oxygen. MANUAL CODE: CPI: E05-E02; E05-E03; E10-E04M1; E10-E04M2;
N02-F; N05-C

Member(0003)

ABEQ JP 08291181 A UPAB 20060111

Hydrosilation comprises contacting (A) silicon hydride of formula (R1)a(H)bSiX(4-a-b) (I) and (B) an unsatd. reactant selected from (i) opt. substd. unsatd. organic cpds., and/or (ii) silicon cpds. comprising opt. substd. unsatd. organic substs., in presence of a platinum catalyst (VI) (platinum cpds. or platinum complexes) and an accelerator (unsatd. sec. or tert. alcohols of formula (R2)2CCHC(R2)(R3)OH (II) and (III) or silylated unsatd. sec. or tert. alcohols of formula ((R2)2CCHC(R2)(R3)O)eSi(R1)c(H)d(X)4-c-d-e (IV) and (V)). In the formulae, R1 is 1-20C alkyl, 1-12 cycloalkyl or aryl; X is halo or OR1; a is 0-3; b is 1-3 and z+b is 1-4. R2 is H or 1-6C alkyl; R3 is 1-6C alkyl; c and d are 0-3; c+d is 0-3; e and f is 1-4 and n is 0-10.

ADVANTAGE - Accelerators are useful for hydrosilation of unsatd. reactants where unsaturation is in internal portion of reactant's structure. They are moreover effective in presence or absence of oxygen.

L135 ANSWER 48 OF 66 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
 ACCESSION NUMBER: 1996-068311 [07] WPIX
 DOC. NO. CPI: C1996-022223 [07]
 TITLE: Hydrosilation process using alcohol or silylated alcohol accelerator - comprises reacting silicon hydride and unsatd. reactant in presence of platinum catalyst and accelerator
 DERWENT CLASS: E11
 INVENTOR: BANK H M; DECKER G T
 PATENT ASSIGNEE: (DOWO-C) DOW CORNING CORP
 COUNTRY COUNT: 5

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
US 5481016	A	19960102 (199607)*	EN	5[0]		<--	
EP 738731	A2	19961023 (199647)	EN	5[0]		<--	
JP 08333373	A	19961217 (199709)	JA	6[0]		<--	
EP 738731	A3	19970910 (199746)	EN			<--	
EP 738731	B1	20011128 (200201)	EN			<--	
DE 69617308	E	20020110 (200211)	DE			<--	
JP 3771317	B2	20060426 (200629)	JA	9			

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 5481016 A		<u>US 1995-422470 19950417</u>	
DE 69617308 E		<u>DE 1996-617308 19960409</u>	
EP 738731 A2		<u>EP 1996-302476 19960409</u>	
EP 738731 A3		<u>EP 1996-302476 19960409</u>	
EP 738731 B1		<u>EP 1996-302476 19960409</u>	
DE 69617308 E		<u>EP 1996-302476 19960409</u>	

JP 08333373 A
JP 3771317 B2

JP 1996-95500 19960417
JP 1996-95500 19960417

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 69617308	E Based on	EP 738731 A
JP 3771317	B2 Previous Publ	JP 8333373 A

PRIORITY APPLN. INFO: US 1995-422470 19950417

INT. PATENT CLASSIF.:

MAIN:	<u>C07F007-14</u>
IPC ORIGINAL:	B01J0031-16 [I,C]; B01J0031-22 [I,A]; C07F0007-00 [I,C]; <u>C07F0007-14</u> [I,A]
IPC RECLASSIF.:	B01J0023-42 [I,A]; B01J0023-42 [I,C]; B01J0027-06 [I,C]; B01J0027-13 [I,A]; B01J0031-16 [I,C]; B01J0031-20 [I,A]; B01J0031-22 [I,A]; B01J0031-24 [I,A]; C07B0047-00 [I,A]; C07B0047-00 [I,C]; C07B0061-00 [I,A]; C07B0061-00 [I,C]; C07F0007-00 [I,C]; C07F0007-08 [I,A]; C07F0007-10 [I,A]; C07F0007-12 [I,A]; <u>C07F0007-14</u> [I,A]; C07F0007-18 [I,A]

BASIC ABSTRACT:

US 5481016 A UPAB: 20060111

A hydrosilation process comprises contacting (a) a silicon hydride of formula (R1)aHbSiX4-a-b (I) and (b) an unsatd. reactant selected from (1) (un)subst. unsatd. organic cpds. and/or (2) Si cpd. (un)subst. unsatd. organic substituents in the presence of (c) a Pt catalyst selected from Pt cpds. and Pt complexes, and (d) an accelerator selected from tert. alcohols of formula ((R2)3COH (II), silated tert. alcohols of formula ((R2)3CO)cSi(R1)cHdX4-c-d-e (III), benzyl alcohol and silated benzyl alcohol of formula ((C6H5)CH2O)fSi(R1)cHdX4-c-d-f (IV). R1 = 1-20C alkyl, 4-12C cycloalkyl and aryl; X = halogen or OR1; R2 = 1-20C straight chain alkyl; a = 0-3, b = 1-3, and a+b = 1-4; c, d = 0-3; c+d = 0-3; e, f = 1-4.

The process is carried out with 0.1-10% stoichiometric excess of silicon hydride in respect to unsatd. carbon-carbon linkages of the unsatd. reactant. The concentration of Pt catalyst provides 1-1000 moles of Pt per 1x10⁶ moles of unsatd. carbon-carbon bonds provided by the unsatd. reactant. The concentration of the accelerator is 0.01-20 (pref. 0.1-10) weight% of the unsatd. reactant. The reaction is carried out at 15-170 (pref. 30-150) °C.

USE - The accelerator is partic. useful for the hydrosilation of unsatd. reactants where the unsaturation is in the internal portion of the reactants structure e.g. cyclopentene and cyclohex.

ADVANTAGE - The accelerators are effective in the presence of absence of oxygen.

MANUAL CODE: CPI: E05-E01; E05-E02; N02-F

Member(0003)

ABEQ JP 08333373 A UPAB 20060111

A hydrosilation process comprises contacting (a) a silicon hydride of formula (R1)aHbSiX4-a-b (I) and (b) an unsatd. reactant selected from (1) (un)subst. unsatd. organic cpds. and/or (2) Si cpd. (un)subst. unsatd. organic substituents in the presence of (c) a Pt catalyst selected from Pt cpds. and Pt complexes, and (d) an accelerator selected from tert. alcohols of formula ((R2)3CO)cSi(R1)cHdX4-c-d-e (III), benzyl alcohol and silated benzyl alcohol of formula ((C6H5)CH2O)fSi(R1)cHdX4-c-d-f (IV). R1 = 1-20C alkyl, 4-12C cycloalkyl and aryl; X = halogen or OR1; R2 = 1-20C straight chain alkyl; a = 0-3, b = 1-3, and a+b = 1-4; c, d = 0-3; c+d = 0-3; e, f = 1-4;

0-3; e, f = 1-4.

The process is carried out with 0.1-10% stoichiometric excess of silicon hydride in respect to unsatd. carbon-carbon linkages of the unsatd. reactant. The concn. of Pt catalyst provides 1-1000 moles of Pt per 1×10^6 moles of unsatd.

carbon-carbon bonds provided by the unsatd. reactant. The concn. of the accelerator is 0.01-20 (pref. 0.1-10)wt.% of the unsatd. reactant. The reaction is carried out at 15-170 (pref. 30-150) °C.

USE - The accelerator is partic. useful for the hydrosilation of unsatd. reactants where the unsaturation is in the internal portion of the reactants structure e.g. cyclopentene and cyclohex.

ADVANTAGE - The accelerators are effective in the presence of absence of oxygen.

L135 ANSWER 49 OF 66	WPIX COPYRIGHT 2007	THE THOMSON CORP on STN
ACCESSION NUMBER:	1996-339179 [34]	WPIX
DOC. NO. CPI:	C1996-107411 [34]	
TITLE:	Organo: <u>silicon</u> cpd. preparation useful as surface treating agent - by additionally reacting di:siloxane with silane cpd. in presence of <u>hydro-silylating catalyst</u>	
DERWENT CLASS:	A60; E11; G02	
INVENTOR:	KOBAYASHI H; MASATOMI T	
PATENT ASSIGNEE:	(DOWO-C) DOW CORNING TORAY SILICONE	
COUNTRY COUNT:	1	

PATENT INFORMATION:

PATENT NO	KIND DATE	WEEK	LA	PG	MAIN IPC
JP 08157483	A 19960618 (199634)*	JA	7[3]		<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 08157483	A	<u>JP 1994-321410 19941130</u>	

PRIORITY APPLN. INFO: JP 1994-321410 19941130

INT. PATENT CLASSIF.:

IPC RECLASSIF.: B01J0027-06 [I,C]; B01J0027-13 [I,A]; B01J0031-16 [I,C];
B01J0031-22 [I,A]; C07B0061-00 [I,A]; C07B0061-00 [I,C];
C07F0007-00 [I,C]; C07F0007-12 [I,A]; C07F0007-14
[I,A]; C07F0007-18 [I,A]

BASIC ABSTRACT:

JP 08157483 A UPAB: 20050512

An organosilicon cpd. of formula $R_1(R_2)_2Si-O-(R_2)_2Si-R_3-SiR_2(3-m)X_m$ (I) is new. R_1 = alkyl, aryl, F-containing alkyl or F -containing alkyloxyalkyl; R_2 = alkyl or aryl; R_3 = alkylene or alkyleneoxyalkylene; X = halogen or alkoxy; and m = 1-3.

Also claimed is preparation of cpd. (I) which comprises additionally reacting (A) disiloxane of formula $R_1(R_2)_2Si-O-(R_2)_2Si-R_4$ (II) with a silane cpd. of formula $HSiR_2(3-m)X_m$ (III) in the presence of (C) a hydrosilylating catalyst or which comprises additionally reacting (A') disiloxane of formula $R_1(R_2)_2Si-O-(R_2)_2Si-H$ (II') with (B') organosilane cpd. of formula $R_4-SiR_2(3-m)X_m$ (III') in the presence of (C). R_4 = alkenyl or alkenyloxyalkyl.

USE - The organic silicone cpd. is suitable as a surface treating agent for making the surface of glass, metal or powder hydrophobic or as a reactive additives for organic resin or coatings.

ADVANTAGE - The organic silicone cpd. has siloxane bond and silalkylene bond.

MANUAL CODE: CPI: A08-M01D; E05-E01; E05-E02B; G02-A05; N02-E04

L135 ANSWER 50 OF 66 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN

ACCESSION NUMBER: 1996-112710 [12] WPIX

DOC. NO. CPI: C1996-035406 [12]

TITLE: Bis-di:chloro organo silyl alkane
derivs. for organic silicone polymer - prepared by
hydrogen-silicon reacting di:chloro
silyl methane derivative and olefin* in presence of
catalyst e.g. platinum, nickel or
copper

DERWENT CLASS: A41; E11

INVENTOR: JUNG I; JUNG I N; LEE B; LEE B W; SUK M

PATENT ASSIGNEE: (KOAD-C) KOREA ADV INST SCI & TECHNOLOGY; (KOAD-C) KOREA
INST SCI & TECHNOLOGY; (KORE-N) KOREA RES INST CHEM
TECHNOLOGY

COUNTRY COUNT: 3

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
JP 08012682	A	19960116	(199612)*	JA	15[0]	<--
US 5527934	A	19960618	(199630)	EN	14[0]	<--
JP 2823807	B2	19981111	(199850)	JA	16	<--
KR 142142	B1	19980701	(200017)	KO		<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 08012682	A	<u>JP 1995-4598 19950117</u>	
KR 142142	B1	<u>KR 1994-14634 19940624</u>	
JP 2823807	B2	<u>JP 1995-4598 19950117</u>	
US 5527934	A	<u>US 1995-493453 19950623</u>	

FILING DETAILS:

PATENT NO	KIND	PATENT NO
JP 2823807 B2	Previous Publ	JP 08012682 A

PRIORITY APPLN. INFO: KR 1994-14634 19940624

INT. PATENT CLASSIF.:

MAIN: C07F007-12

IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-12 [I,A]; C07F0007-14
[I,A]

BASIC ABSTRACT:

JP 08012682 A UPAB: 20050511

Bis(dichloro organosilyl) alkane derivs. of formula (1) are new:
Si(R1)Cl2-A-Si(Cl2)(R2) (1)

R1, R2 = -(CH₂)₂R3

(R3 = alkyl, aryl, silyl, cyclohexenyl, or cyano), or -CH₂-CH(CH₃)-Ph-X
(X = H, alkyl, phenyl or halogen atoms)

(R1= R2), or

R1 = alkyl or -(CH₂)₂R3, and

R2 = -CH₂-CH(CH₃)-Ph-X; and

A = alkylene, allylene or aralkylene.

USE - The cpds. (1) are used as starting material of organic silicon polymers.

MANUAL CODE: CPI: A01-A03; E05-E01; E05-E02B

Member(0003)

ABEQ JP 2823807 B2 UPAB 20050511

Bis(dichloro organosilyl) alkane derivs. of formula
(1) are new:

Si(R₁)Cl₂-Si(R₂)R₃ (1)

R₁, R₂ = -(CH₂)₂R₃

(R₃ = alkyl, aryl, silyl, cyclohexenyl, or cyano), or -CH₂-CH(CH₃)-Ph-X
(X = H, alkyl, phenyl or halogen atoms)

(R₁= R₂), or

R₁ = alkyl or -(CH₂)₂R₃, and

R₂ = -CH₂-CH(CH₃)-Ph-X; and

A = alkylene, allylene or aralkylene.

USE - The cpds. (1) are used as starting material of organic silicon polymers.

L135 ANSWER 51 OF 66 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN

ACCESSION NUMBER: 1995-042786 [06] WPIX

DOC. NO. CPI: C1995-019474 [06]

TITLE: Maintenance of catalytic activity in
hydrosilylation reaction - in which a peroxide
is added to the reaction between a silicon
hydride with unsatd. organic or silicon cpd. in
presence of platinum catalyst

DERWENT CLASS: C02; E11; E19

INVENTOR: BANK H M

PATENT ASSIGNEE: (DOWO-C) DOW CORNING CORP

COUNTRY COUNT: 5

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 5359113	A	19941025 (199506)*	EN	7[0]		<--
EP 652222	A1	19950510 (199523)	EN			<--
JP 07207159	A	19950808 (199540)	JA	8[0]		<--
EP 652222	B1	20000112 (200008)	EN			<--
DE 69422589	E	20000217 (200016)	DE			<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 5359113 A		US 1993-148944	19931108
DE 69422589 E		DE 1994-69422589	19941102
EP 652222 A1		EP 1994-308061	19941102
EP 652222 B1		EP 1994-308061	19941102
DE 69422589 E		EP 1994-308061	19941102
JP 07207159 A		JP 1994-269891	19941102

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 69422589 E	Based on	EP 652222 A

PRIORITY APPLN. INFO: US 1993-148944 19931108

INT. PATENT CLASSIF.:

MAIN: **C07F007-14**
 SECONDARY: C07F007-21; C08G077-382
 IPC RECLASSIF.: B01J0023-42 [I,A]; B01J0023-42 [I,C]; B01J0027-06 [I,C];
 B01J0027-13 [I,A]; B01J0031-16 [I,A]; B01J0031-16 [I,C];
 C07F0007-00 [I,C]; C07F0007-08 [I,A]; C07F0007-12 [I,A];
C07F0007-14 [I,A]; C07F0007-16 [I,A]; C07F0007-18
 [I,A]; C08K0005-00 [I,C]; C08K0005-14 [I,A]; C08L0083-00
 [I,C]; C08L0083-04 [I,A]

BASIC ABSTRACT:

US 5359113 A UPAB: 20050824

Maintenance of catalytic activity during a hydrosilylation reaction of (A) a silicon hydride with (B) unsatd. cpds. selected from (i) opt. substd. unsatd. organic cpds. and their mixts.; (ii) opt. substd. unsatd. Si cpds. or their mixts.; and (iii) mixts. of (i) and (ii); in the presence of (C) a hydrosilylation catalyst selected from (a) Pt metal on a support; (b) Pt cpds., and (c) Pt complexes; is effected by adding a peroxide to the reaction mixture

The silicon hydrides are selected from RxSiH_{4-x}, RyHuSiX_{4-y-u}, Rz(R'O)_{4-z-w}SiH_w, or cpd. chosen from formulae (IV)-(VII). In the formulae, R = opt. substd. 1-30C alkyl, opt. substd. at least 4C cycloalkyl, and opt. substd. 6-16C aryl; R' = 1-6C alkyl; R'' = -H or as R, provided that at least one R'' in each molecule is -H; X = halide; p and q each = at least 1, provided that p+q = 3-8; r = 3-8; s and t each = 1 or greater; u = 1, 2 or 3, provided that u+y is less than or equal to 3; v = 0 or an integer of 1 or greater; w = 1-3; x = 1-3; y = 0-2; and z = 0-2, provided that w+z is less than or equal to 3;

ADVANTAGE - The catalytic activity of the reaction is maintained until one or both of the reactants are consumed. MANUAL CODE: CPI: C05-B01B; E05-E01; E05-E02; E10-A04B; **N02-F**

Member(0004)

ABEQ EP 652222 B1 UPAB 20050824

Maintenance of catalytic activity during a hydrosilylation reaction of (A) a silicon hydride with (B) unsatd. cpds. selected from (i) opt. substd. unsatd. organic cpds. and their mixts.; (ii) opt. substd. unsatd. Si cpds. or their mixts.; and (iii) mixts. of (i) and (ii); in the presence of (C) a hydrosilylation catalyst selected from (a) Pt metal on a support; (b) Pt cpds., and (c) Pt complexes; is effected by adding a peroxide to the reaction mixt.

The silicon hydrides are selected from RxSiH_{4-x}, RyHuSiX_{4-y-u}, Rz(R'O)_{4-z-w}SiH_w, or cpd. chosen from formulae (IV)-(VII). In the formulae, R = opt. substd. 1-30C alkyl, opt. substd. at least 4C cycloalkyl, and opt. substd. 6-16C aryl; R' = 1-6C alkyl; R'' = -H or as R, provided that at least one R'' in each molecule is -H; X = halide; p and q each = at least 1, provided that p+q = 3-8; r = 3-8; s and t each = 1 or greater; u = 1, 2 or 3, provided that u+y is less than or equal to 3; v = 0 or an integer of 1 or greater; w = 1-3; x = 1-3; y = 0-2; and z = 0-2, provided that w+z is less than or equal to 3;

ADVANTAGE - The catalytic activity of the reaction is maintained until one or both of the reactants are consumed.

L135 ANSWER 52 OF 66 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
 ACCESSION NUMBER: 1994-365405 [45] WPIX
 CROSS REFERENCE: 1993-095482; 1994-193451
 DOC. NO. CPI: C1994-166890 [45]
 TITLE: Method of controlling hydrosilylation in a reaction mixture - by controlling the solution concentration of oxygen relative to any platinum in the mixture

DERWENT CLASS: E11
 INVENTOR: DAVERN S P; HAUENSTEIN D E; KLEYER D L; NGUYEN B T;
 SCHULZ W J
 PATENT ASSIGNEE: (DOW-C) DOW CORNING CORP
 COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND DATE	WEEK	LA	PG	MAIN IPC
US 5359111	A 19941025 (199445)*	EN	24[10]		<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 5359111	A Cont of	US 1991-762672	19910918
US 5359111	A Cont of	US 1992-991072	19921214
US 5359111	A CIP of	US 1993-9169	19930126
US 5359111	A	US 1993-99783	19930730

PRIORITY APPLN. INFO: US 1993-99783 19930730
US 1991-762672 19910918
US 1992-991072 19921214
US 1993-9169 19930126

INT. PATENT CLASSIF.:

IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-08 [I,A]; C07F0007-14
[I,A]; C07F0007-18 [I,A]; C08G0077-00 [I,C]; C08G0077-38
[I,A]

BASIC ABSTRACT:

US 5359111 A UPAB: 20060109

A method of controlling hydrosilylation in a reaction mixture comprises controlling the solution concentration of O₂ relative to any Pt in the reaction mixture. The method consists of reacting (a) a silicon hydride with (b) unsatd. cpds. in the presence of (c) a catalyst; oxygen being added to the reaction mixture in controlled amts. (a) is selected from silicon hydrides having the formulae (I), (II), (III), (IV), (V), (VI) and (VII). RxSiH_{4-x} (I), RyHuSiX_{4-y-u} (II), Rz(R₁₀)_{4-zw}SiH_w (III), R₁₁3Si-O-((R₁₁)Si(R₁₁)-O)v-SiR₁₁3 (IV), R₁₁3Si-O-((R₁₁)Si(R₁₁)-O)s-((R)Si(R)O)t-SiR₁₁3 (V), R = (un)substd. 1-30C alkyl or substd. 6-16C aryl; R₁ = 1-6C alkyl; R₁₁ = R or H, provided that at least one R₁₁ in each mol. = H; X = a halide; p = at least 1; q = at least 1, provided that p+q = 3-8; r = 3-8; s = 1 or more; t = 1 or more; u = 1, 2 or 3, provided that u+y is equal to or less than 3; v = 0, 1 or more; w = 1-3; x = 1-3; y = 0-2; and z = 0-2, provided that w+z is equal to or less than 3. (b) is selected from: (i) (un)substd. unsatd. organic cpds. or mixts., (ii) (un)substd. unsatd. Si cpds. or mixts.; and (iii) mixts. of (i) and (ii). (c) is selected from: (iv) Pt metal on a support; (v) Pt cpds.; and (vi) Pt complexes.

Also claimed are the following: (1) a method of controlling hydrosilylation by reacting a silicon hydride of formula (II) with (un)substd. olefinically unsatd. alkenyl cpds. selected from 4-8C cycloalkenyl cpds., linear 2-30C alkenyl cpds., and branched 4-30C alkenyl cpds. in the presence of (c); claims (2) to (7) inclusively are methods in which the silicon hydride has the formula (I), (III), (IV), (V), (VI) or (VII) respectively, with (b) and (c) being as in (1) for each of claims (2) to (3); (8) a method for the preparation of dicycloalkylsubstd. silanes (See Claimed Method); and (9) a method of controlling isomerisation in linear/branched alkenyl cpds., having at least 4C, by introducing a controlled amount of O₂ into a reaction mixture during hydrosilylation which occurs as described in the main claim.

USE - The method is partic. useful for the production of dicycloalkylsubstd. silanes (claimed).

ADVANTAGE - The presence of O₂ during the reaction enhances reaction parameters such as reaction rate and selectivity of addition O₂ level is 1-5 weight% in combination with an inert gas. MANUAL CODE: CPI: E05-E01; E05-E02; N02-F; N05-B; N05-C

L135 ANSWER 53 OF 66 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
 ACCESSION NUMBER: 1988-229683 [33] WPIX
 DOC. NO. CPI: C1988-102588 [21]
 TITLE: Production of cycloalkyl silane cpds. - by photochemically induced hydrosilylation
 DERWENT CLASS: A41; E11
 INVENTOR: ENDO M; ISHIHARA T; KUBOTA T; SHINOHARA N; SHINOHARA T;
 TAKAMIZAWA M
 PATENT ASSIGNEE: (SHIE-C) SHINETSU CHEM CO LTD; (SHIE-C) SHINETSU CHEM IND
 CO LTD
 COUNTRY COUNT: 6

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
EP 278863	A	19880817 (198833)*	EN	4[0]		<--
JP 63198692	A	19880817 (198839)	JA			<--
US 4883569	A	19891128 (199006)	EN	5		<--
US 4957607	A	19900918 (199040)	EN			<--
JP 03014835	B	19910227 (199112)	JA			<--
EP 278863	B1	19931208 (199349)	EN	7[0]		<--
DE 3886063	G	19940120 (199404)	DE			<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 278863 A		<u>EP 1988-400270 19880205</u>	
JP 63198692 A		<u>JP 1987-30994 19870213</u>	
JP 03014835 B		<u>JP 1987-30994 19870213</u>	
DE 3886063 G		<u>DE 1988-3886063 19880205</u>	
EP 278863 B1		<u>EP 1988-400270 19880205</u>	
DE 3886063 G		<u>EP 1988-400270 19880205</u>	
US 4883569 A		<u>US 1988-154691 19880211</u>	
US 4957607 A		<u>US 1989-380550 19890717</u>	

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 3886063 G	Based on	EP 278863 A

PRIORITY APPLN. INFO: JP 1987-30994 19870213

INT. PATENT CLASSIF.:

MAIN: C07F007-08
 IPC RECLASSIF.: C07B0061-00 [I,A]; C07B0061-00 [I,C]; C07F0007-00 [I,C];
 C07F0007-08 [I,A]; C07F0007-12 [I,A]; C07F0007-14
 [I,A]; C07F0007-18 [I,A]

BASIC ABSTRACT:

EP 278863 A UPAB: 20050429

The preparation of a cycloalkylsilane cpd. comprises admixing an unsatd. cyclic hydrocarbon of formula C_mR₁nAp (in which R₁ = H, F or F-substd. or

unsubst. 1-8C hydrocarbon group, A is a methylene or dimethylmethylen gp., m = 4-8, p = 0-1 and n = 2m-2p-2) with a hydrosilane, represented by HR_{2q}SiX_{3-q}, (in which R₂ is subst. or unsubstd. hydrocarbon gp.; X = halogen or alkoxy, q = 0-2) and a Pt. cpd. (pref. 20 ppm by weight of hydrosilane) then irradiating the reaction mixture with light (pref. UV). More specifically cyclohexyl silanes are prepared from cyclohexene by this process.

ADVANTAGE - The process is improves the yields of cycloalkyl silanes given in and avoids the high production costs of the alternative industrially used Grignard method. **MANUAL CODE:** CPI: A01-A03; E05-E01; E05-E02; N02-F

Member (0003)

ABEQ US 4883569 A UPAB 20050429

Prepn. of cycloalkyl silane cmpd. comprises: (A) admixing an unsatd. cyclic hydrocarbon cmpd. of formula; C_mR₁nAp Where R₁ = H, F, F subst. or unsubstd. monovalent hydrocarbon grp. of 1-8C a = divalent intramolecular bridging grp. pref. methylene CH₂ and dimethylene grp. C(CH₃)₂ m = 4-8 p = 0,1 n = 2m-2p-2 with a hydrogen silane cpd. represented by the general formula; HR_{2q}SiX_{3-q} Where R₂ = unsubstd. subst. monovalent hydrocarbon grp. X = Hal, alkoxy g = 0, 1, 2 and Pt. catalyst prepared by the heating chloroplatinic acid in alcohol to form mixture and (B) irradiating mixture with light to effect hydrosilylation between unsatd. cyclic hydrocarbon cmpd. and HSi cmpd.

USE/ADVANTAGE - Provides efficient method of prepn. of cycloalkyl silane cmpd. - (5pp)

Member (0004)

ABEQ US 4957607 A UPAB 20050429

Prepn. of a cycloalkyl silane cpd. comprises; a) admixing an unsatd. hydrocarbon of formula C_mR₁nAp (where R₁ is H, F or F -subst. or unsubstd. monovalent hydrocarbon gp.; A is a divalent intramolecular bridging gp.; M = 4-8; p = 0-1; n = 2m-2p-2) with hydrogen silane of formula HR_{2q}SiX_{3-q} (where R₂ is opt. subst. monovalent hydrocarbon gp.; X is halogen or alkoxy gp.; q = 0-2) and on alcoholic complex of chloroplatinic acid and b) irradiating mixt. with UV to effect hydrosilation reaction.

ADVANTAGE - Prepn. is more efficient than prior art, gives higher yields and is more economical. - (5pp)

AN.S DCR-127

CN.P POTASSIUM CHLORIDE

SDCN R01678

SDRN 1678

CM 1

Cl

CM 2

K

AN.S DCR-127

CN.P POTASSIUM CHLORIDE

SDCN R01678

SDRN 1678

CM 1

C1

CM 2

K

L135 ANSWER 54 OF 66 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
 ACCESSION NUMBER: 1988-100068 [15] WPIX
 DOC. NO. CPI: C1988-044806 [21]
 TITLE: Reaction of organic cpds. containing 1 double bond with
hydrosilane(s) - in presence of amide and
platinum catalyst
 DERWENT CLASS: E19
 INVENTOR: IMAI T; SUZUKI M
 PATENT ASSIGNEE: (DOWO-C) DOW CORNING TORAY SILICONE; (TORB-C) TORAY
 SILICONE CO LTD
 COUNTRY COUNT: 6

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
EP 263673	A	19880413	(198815)*	EN	4	<--
US 4736049	A	19880405	(198816)	EN	4	<--
JP 63179883	A	19880723	(198835)	JA		<--
CA 1312617	C	19930112	(199308)	EN		<--
EP 263673	B1	19931201	(199348)	EN	6[0]	<--
DE 3788334	G	19940113	(199403)	DE		<--
JP 06033288	B2	19940502	(199416)	JA		<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 263673 A		<u>EP 1987-308834</u>	<u>19871006</u>
JP 63179883 A		<u>JP 1986-237591</u>	<u>19861006</u>
JP 06033288 B2		<u>JP 1986-237591</u>	<u>19861006</u>
US 4736049 A		<u>US 1987-101050</u>	<u>19870925</u>
CA 1312617 C		<u>CA 1987-548557</u>	<u>19871005</u>
DE 3788334 G		<u>DE 1987-3788334</u>	<u>19871006</u>
EP 263673 B1		<u>EP 1987-308834</u>	<u>19871006</u>
DE 3788334 G		<u>EP 1987-308834</u>	<u>19871006</u>

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 3788334 G	Based on	EP 263673 A
JP 06033288 B2	Based on	JP 63179883 A

PRIORITY APPLN. INFO: JP 1986-237591 19861006

INT. PATENT CLASSIF.:

MAIN: C07F007-08; C07F007-12
 IPC RECLASSIF.: B01J0023-42 [I,A]; B01J0023-42 [I,C]; B01J0031-00 [I,A];
 B01J0031-00 [I,C]; B01J0031-02 [I,A]; B01J0031-02 [I,C];
 B01J0031-26 [I,C]; B01J0031-28 [I,A]; C07B0061-00 [I,A];
 C07B0061-00 [I,C]; C07F0007-00 [I,C]; C07F0007-08 [I,A];
 C07F0007-12 [I,A]; C07F0007-14 [I,A]

BASIC ABSTRACT:

EP 263673 A UPAB: 20050819

Addition reaction of hydrosilanes of formula (I) with organic cpds. containing one double bond in presence of Pt catalyst and an amide of formula (II).

(I) is R₃aSiH_{4-a}, or R₃cSiH_dX_{4-c-d}, or R₃eHfSiO(4-e-f)/2, where R₃ = monovalent hydrocarbon, X = halogen,, alkoxy, acyloxy. a = 1, 2 or 3, c = 0, 1, 2, or 3, d = 1, 2 or 3,e and f = between 0 and 3.

R = hydrocarbon; and R₁, R₂ = H or monovalent hydrocarbon.

Pref. Pt is on carbon, chloroplatinic acid etc. as catalyst. Reactn. takes place at 20-200 deg.C..

ADVANTAGE - The presence of amide (I) maximises the yield of beta adduct.

MANUAL CODE: CPI: E05-E; E10-D02; N02-F02

Member(0002)

ABEQ US 4736049 A UPAB 20050819

Prepn. of adducts of hydrogenosilane derivs. (having at least one H-Si gp.) and active (opt. substd.) alkenes

comprises warming the reactants in the presence of a Pt cpd. or finely divided Pt/C as catalyst, in an opt. substd. amide solvent, e.g. N,N-dimethylacetamide, at temps. 20-200 C.

ADVANTAGE - The presence of these catalsts and solvents minimises the formation of the alpha-adduct and ensures improved yields of the beta-adducts, which are valuable intermediates.

Member(0007)

ABEQ JP 94033288 B2 UPAB 20050819

Addn. reaction of hydrosilanes of formula (I) with organic cpds. containing one double bond in presence of Pt catalyst

and an amide of formula (II).

(I) is R₃aSiH_{4-a}, or R₃cSiH_dX_{4-c-d}, or R₃eHfSiO(4-e-f)/2, where R₃ = monovalent hydrocarbon, X = halogen,, alkoxy, acyloxy. a = 1, 2 or 3, c = 0, 1, 2, or 3, d = 1, 2 or 3,e and f = between 0 and 3.

R = hydrocarbon; and R₁, R₂ = H or monovalent hydrocarbon.

Pref. Pt is on carbon, chloroplatinic acid etc. as catalyst. Reaction takes place at 20-200 deg.C..

ADVANTAGE - The presence of amide (I) maximises the yield of beta adduct.

L135 ANSWER 55 OF 66 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN

ACCESSION NUMBER: 1986-278612 [42] WPIX

DOC. NO. CPI: C1986-120491 [21]

TITLE: Low temperature promoted hydrosilation of olefinic cpds. e.g. allyl acrylate - using soluble platinum catalyst and second hydrosilane as promoter

DERWENT CLASS: A41; E11

INVENTOR: SCHILLING C L

PATENT ASSIGNEE: (UNIC-C) UNION CARBIDE CORP

COUNTRY COUNT: 9

PATENT INFORMATION:

PATENT NO	KIND DATE	WEEK	LA	PG	MAIN IPC
US 4614812	A 19860930 (198642)*	EN	18[0]		<--
AU 8667048	A 19870702 (198733)	EN			<--
EP 232551	A 19870819 (198733)	EN			<--
JP 62158293	A 19870714 (198733)	JA			<--

CA 1276161	C 19901113 (199051)	EN	<--
EP 232551	B1 19931118 (199346)	EN 31[0]	<--
DE 3689307	G 19931223 (199401)	DE	<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 4614812 A		<u>US 1985-815007 19851231</u>	
DE 3689307 G		<u>DE 1986-3689307 19861230</u>	
EP 232551 A		<u>EP 1986-118124 19861230</u>	
EP 232551 B1		<u>EP 1986-118124 19861230</u>	
DE 3689307 G		<u>EP 1986-118124 19861230</u>	
JP 62158293 A		<u>JP 1986-315977 19861230</u>	

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 3689307 G	Based on	EP 232551 A

PRIORITY APPLN. INFO: US 1985-815007 19851231

INT. PATENT CLASSIF.:

MAIN:	C07F007-08
IPC RECLASSIF.:	B01J0027-00 [I,A]; B01J0027-00 [I,C]; B01J0031-00 [I,A]; B01J0031-00 [I,C]; C07B0061-00 [I,A]; C07B0061-00 [I,C]; C07F0007-00 [I,C]; C07F0007-08 [I,A]; <u>C07F0007-14</u> [I,A]; C07F0007-21 [I,A]

BASIC ABSTRACT:

US 4614812 A UPAB: 20050426

In the preparation of cpds. containing Si-C bonds (I) by a hydrosilation reaction of a hydrosilyl reactant (II) with an olefinic reactant (III) in the presence of a soluble Pt catalyst (IV), the process is effected at below 150 deg.C, and a hydrosilyl promoter (V) (different from (II)) is employed to provide (a) a 20% increase in (I), or (b) a 20% increase in reaction rate (w.r.t. unpromoted reaction).

ADVANTAGE - The reaction scale may range from grams to several thousand kg. The active catalyst is generated in situ and the induction period associated with use of H2PtCl6 is eliminated. Certain (V) enable some reactions to proceed at sub-ambient temps. thus permitting use of ambient pressures. Optimum promoting effects (relative to reaction rate and selectivity) are observed when the electron environment of (V) is most nearly opposite that of (II). MANUAL CODE: CPI: A01-A03; A10-E22A; E05-E; E31-P06B; N02-F; N05-A

L135 ANSWER 56 OF 66	WPIX COPYRIGHT 2007	THE THOMSON CORP on STN
ACCESSION NUMBER:	1985-209795 [34]	WPIX
CROSS REFERENCE:	1985-074265	
DOC. NO. CPI:	C1985-091450 [21]	
TITLE:	<u>Hydrosilylation</u> of unsatd. cpds. - using <u>catalyst</u> comprising <u>platinum</u> bonded to support through mercapto gps.	
DERWENT CLASS:	A41; E11; J04	
INVENTOR:	WILLIAMS R E	
PATENT ASSIGNEE:	(GENE-C) GENERAL ELECTRIC CO	
COUNTRY COUNT:	1	

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
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US 4533744 A 19850806 (198534)* EN 6[0]

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APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 4533744 A		US 1983-527538 19830829	
US 4533744 A		US 1984-670250 19841113	

PRIORITY APPLN. INFO: US 1984-670250 19841113

INT. PATENT CLASSIF.:

IPC RECLASSIF.: B01J0023-40 [I,A]; B01J0023-40 [I,C]; B01J0031-02 [I,A];
 B01J0031-02 [I,C]; C07F0007-00 [I,C]; C07F0007-08 [I,A];
C07F0007-14 [I,A]; C07F0007-18 [I,A]

BASIC ABSTRACT:

US 4533744 A UPAB: 20050423

Hydrosilylation of aliphatically unsatd. cpds. (I) is effected by reaction with a Si hydride (II) in the presence of a catalyst comprising 0.05-5 weight% Pt on a derivatised hydroxylated silica or alumina support with a surface area of 100-800 m²/g, where the support has -OSiRS- gps. and the Pt is chemically bonded to the surface of the support through Pt-S linkages (R = a divalent 2-13C organic gp.).

Specifically, (I) is 4-allyloxy-2-hydroxybenzophenone (Ia), allyl chloride or allyl methacrylate. (II) is HSi(OEt)₃ or HSiCl₃. Pref. the reaction is effected at 0-200 deg.C in the presence of 0.0001-1 weight% Pt.

ADVANTAGE - The catalysts are readily recovered after the reaction and may be re-used repeatedly. MANUAL CODE: CPI: A01-A03; A12-W11B; E05-E; J04-E01; N02-F

L135 ANSWER 57 OF 66 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
 ACCESSION NUMBER: 1985-074265 [12] WPIX
 DOC. NO. CPI: C1985-032364 [21]
 TITLE: Hydrosilylation catalyst containing platinum atoms - bonded to silica or alumina by mercapto-propyl:siloxy gps.
 DERWENT CLASS: A26; E11; J04
 INVENTOR: WILLIAMS R E
 PATENT ASSIGNEE: (GENE-C) GENERAL ELECTRIC CO
 COUNTRY COUNT: 5

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
US 4503160	A	19850305 (198512)*	EN 6[0]				<--
DE 3423290	A	19850314 (198512)	DE				<--
FR 2551066	A	19850301 (198514)	FR				<--
GB 2145701	A	19850403 (198514)	EN				<--
JP 60084144	A	19850513 (198525)	JA				<--
GB 2145701	B	19870603 (198722)	EN				<--
JP 63066571	B	19881221 (198903)	JA				<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 4503160 A		US 1983-527538 19830829	
US 4503160 A		US 1984-670250 19841113	
GB 2145701 A		GB 1984-10768 19840427	

DE 3423290 A
 FR 2551066 A
 JP 60084144 A

DE 1984-3423290 19840623
FR 1984-13060 19840822
JP 1984-177629 19840828

PRIORITY APPLN. INFO: US 1983-527538 19830829
US 1984-670250 19841113

INT. PATENT CLASSIF.:

IPC RECLASSIF.: B01J0023-40 [I,A]; B01J0023-40 [I,C]; B01J0031-02 [I,A];
 B01J0031-02 [I,C]; B01J0031-12 [I,A]; B01J0031-12 [I,C];
 B01J0031-26 [I,A]; B01J0031-26 [I,C]; B01J0031-28 [I,A];
 C07B0061-00 [I,A]; C07B0061-00 [I,C]; C07F0015-00 [I,A];
 C07F0015-00 [I,C]; C07F0007-00 [I,C]; C07F0007-08 [I,A];
C07F0007-14 [I,A]; C07F0007-18 [I,A]

BASIC ABSTRACT:

US 4503160 A UPAB: 20050423

Hydrosilylation catalyst is a hydroxylated Si or Al oxide having 0.1-1 weight% chemically combined Pt. The oxide is derivatised with many gps. of formula (1) attached to the surface of the oxide by gp. (2) or gp. (3) links.

Derivatisation comprises reacting the oxide with a mercapto-organoalkoxysilane (I), and the Pt is chemically combined to the oxide surface through the Pt-S linkages. (R=2-13C divalent organic gps.).

The catalyst is produced by reacting the oxide, of surface area 100-800 sq.m./g, and (RpO)3Si-R-SH (R'=1-8C alkyl) with azeotropic removal of water and alcohol then dried. The prod. is then reacted under anhydrous conditions with Pt halide, especially H2PtCl6.6H2O (II). The silane is specifically 3-mercaptopropyl-trimethoxy silane (Ia). The catalyst is used for hydrosilylation at 0-200 deg. C using 0.0001-1 weight% Pt based on the reaction mixture. The catalyst can be reused.

USE - These catalysts are useful for silylation of olefinically or acetylenically unsatd. cpds. with organosilanes or organocyclopolsiloxanes.

MANUAL CODE: CPI: A01-A03; A12-W11B; E05-E01; E05-E02; E31-P01;
 E31-P02; E34-C01; J04-E04; N01-C; N01-D; N02-F;
 N05-E

L135 ANSWER 58 OF 66 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN

ACCESSION NUMBER: 1984-133882 [21] WPIX

DOC. NO. CPI: C1984-056595 [21]

TITLE: Ultrasonically accelerated hydrosilation(s) -
 used in mfg. organo:silane(s), silicone resins,
 elastomers and lubricants

DERWENT CLASS: A41; E11

INVENTOR: BOUDJOUK P R

PATENT ASSIGNEE: (UYND-N) N DAKOTA STATE UNIV

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
US 4447633	A	19840508 (198421)*	EN	4[0]			<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 4447633 A		<u>US 1983-504218 19830614</u>	

PRIORITY APPLN. INFO: US 1983-504218 19830614

INT. PATENT CLASSIF.:

IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-08 [I,A]; C07F0007-14

[I,A]; C07F0007-18 [I,A]

BASIC ABSTRACT:

US 4447633 A UPAB: 20050421

Process comprises exposing a mixture of a cpd. containing a pi-bond and a silane of formula R_{3-n}SiH_{1+n} (I) having silanic hydrogen in the presence of a platinum catalyst to ultrasonic energy. In (I), R is halogen, lower alkoxy, both halogen and lower alkoxy, substd. alkoxy, lower alkyl, substd. alkyl, phenyl or mixts.; n= 0, 1, 2.

The cpd. having the pi-bond contains above 2C atoms and is an alkene, alkyne, above 4C aliphatic cpd., olefinic cpd., aromatic nucleus such as phenylacetylene.

The process is partic. useful in the formation of intermediate monomers for producing silicone resins and elastomers, in producing Si-containing oils and lubricants and in providing a practical and economic method for mfg. organosilanes, organic and inorganic Si -containing material including silicon carbide. High yields of commercially important organosilanes are obtd. with simple, efficient isolation of pure adduct hydrosilation prod. avoiding formation of partially polymerised prods., and need for solvent or diluent. The expensive catalyst is easily recovered for reuse. MANUAL CODE: CPI: A01-A03; E05-E; N02-F

L135 ANSWER 59 OF 66 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
 ACCESSION NUMBER: 1983-34907K [15] WPIX
 DOC. NO. CPI: C1983-034087 [21]
 TITLE: Tetra:fluoro-ethyl-oxy-alkyl silane preparation - by hydrogen-silane addition to tetra:fluoro-ethyl-alkenyl ether in tubular reactor
 DERWENT CLASS: E11
 INVENTOR: LINDNER T; RIEDLE R; WAGNER W; ZELLER N
 PATENT ASSIGNEE: (WACK-C) WACKER CHEM GMBH
 COUNTRY COUNT: 6

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
EP 75864	A	19830406 (198315)*	DE	11		<--
DE 3138236	A	19830407 (198315)	DE			<--
JP 58099425	A	19830613 (198329)	JA			<--
US 4454331	A	19840612 (198426)	EN			<--
EP 75864	B	19860108 (198603)	DE			<--
DE 3268428	G	19860220 (198609)	DE			<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 75864 A		EP 1982-108796	19820923
DE 3138236 A		DE 1981-3138236	19810925
DE 3268428 G		DE 1981-3138236	19810925
US 4454331 A		US 1982-401785	19820726

PRIORITY APPLN. INFO: DE 1981-3138236 19810925

INT. PATENT CLASSIF.:

IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-12 [I,A]; C07F0007-14
[I,A]

BASIC ABSTRACT:

EP 75864 A UPAB: 20050421

Tetra-fluoro ethyloxyalkyl-silanes (I) are prepared in the liquid phase by the addition reaction of Si-H bond-containing silanes (II), with aliphatic multi-bond-containing tetrafluoroethyloxy -cpds. (III). Novelty consists in

carrying out the reaction in a tubular reactor, and rotating the reaction mixture. The speed of rotation is at least 10 m/min. (II) is used in pref. 10-25 mol % excess w.r.t. the (III)-quantity in the reaction mixture.

Pref. (II) can have formula $\text{HSi}(\text{R(O)b})\text{aX}_3\text{-a}$ (where X is halogen; a is 0, 1, 2 or 3; b is 0 or 1 and R is monovalent opt. substd. 1-18C hydrocarbyl free from aliphatic multiple bonding). Pref. (III) can have formula $\text{HCF}_2\text{CF}_2\text{OQ}$ (where Q is a 2-6C aliphatic gp. with multiple bonding, especially olefinic double bonding) and are especially tetrafluoroethyl -vinyl- and -allyl ethers.

(I) are used as water- and oil-proofing agents for textiles, paper prods., for surface-finishing inorganic or organic solids and also as foam-inhibitors and lubricants. (I) are obtd. in high yields, without F exchange reactions.

MANUAL CODE: CPI: E05-E02; N02; N05-B

Member (0004)

ABEQ US 4454331 A UPAB 20050421

F₄-ethyloxyalkyl silanes are produced by reacting in liquid phase a silane contg. H bound to Si with a F₄-ethyloxy cpd. contg. an aliphatic multiple bond. The reaction mixt. is recycled at a rate of at least 10 m/min.. A 10-25% mol.% excess of the silane is used in the reaction mixt.. The reaction is pref. (a) carried out in a tubular reactor, (b) in presence of esp. 10(-3) to 10(-7) mol., of a hydrosilation catalyst per g-atom H bound to Si and (c) at 80-120 deg.C..

Silanes can be produced in high yields while keeping the F exchange reaction to a minimum. The silanes are used to treat textile materials and paper products to impart hydrophobic and oleophilic properties. They can also be used as antifoams and lubricants. (4pp)u

L135 ANSWER 60 OF 66 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
 ACCESSION NUMBER: 1982-84959E [40] WPIX
 TITLE: Fluorine-containing silicone monomer preparation - by reacting olefin containing per:fluoroalkyl with di:chloromethyl hydrosilane in presence of palladium catalyst, then treating with alcohol
 DERWENT CLASS: A41; E11
 INVENTOR: FUCHIGAMI T; OSHIMA I; YATABE M
 PATENT ASSIGNEE: (SAGA-C) SAGAMI CHEM RES CENTRE
 COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
JP 57140787	A	19820831 (198240)*	JA	5		<--
JP 63038031	B	19880728 (198834)	JA			<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 57140787 A		JP 1981-25539	19810225
JP 63038031 B		JP 1981-25539	19810225

PRIORITY APPLN. INFO: JP 1981-25539 19810225

INT. PATENT CLASSIF.:

IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-12 [I,A]; C07F0007-18 [I,A]; C08G0077-00 [I,A]; C08G0077-00 [I,C]; C08G0077-04 [I,A]; C08G0077-06 [I,A]; C08G0077-22 [I,A]

BASIC ABSTRACT:

JP 57140787 A UPAB: 20050420
 Mfr. of fluorine containing silicone monomer of formula
 $\text{Rf}-\text{CH}(\text{CH}_3)-\text{Si}(\text{OR})_2-\text{CH}_3$ (I)
 (where Rf is 1-20C perfluoroalkyl; R is lower alkyl), comprises reacting
olefin containing perfluoro alkyl gp. of formula, $\text{Rf}-\text{CH}=\text{CH}_2$ (II) with
dichloromethyl hydrosilane in the presence of Pd catalyst to form $\text{Rf}-\text{CH}(\text{CH}_3)-$
 $\text{SiCl}_2-\text{CH}_3$ and if necessary, treating it with lower alcohol.

(I) has oil resistance, cold resistance and solvent resistance in
 addition to improved heat resistance, water repellency and insulating
 properties.

Pref. (II) is 3,3,3-trifluoro-propene, 3,3,4,4,4-pentafluoro-1-butene,
 1-perfluoro butyl ethylene, etc. Pd catalyst is pref. (RCN)2PdCl₂-X3P, PdCl₂-
 X3P(RCN)2PdCl₂, etc. It is used at 0.00001-0.01 mol wrt (II) and can be supplied on
 a carrier. MANUAL CODE: CPI: A01-A03; E05-E02; N02-F; N05-B

L135 ANSWER 61 OF 66 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
 ACCESSION NUMBER: 1981-60403D [33] WPIX
 TITLE: Production of alkoxy-silyl-alkyl ester(s) of di:carboxylic
 acid(s) - from alkenyl di:ester, hydrogeno-halo-silane
 and alcohol
 DERWENT CLASS: A26; E11
 INVENTOR: MITCHELL T D
 PATENT ASSIGNEE: (GENE-C) GENERAL ELECTRIC CO
 COUNTRY COUNT: 7

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 4281145	A	19810728 (198133)*	EN	10		<--
FR 2479832	A	19811009 (198146)	FR			<--
GB 2075533	A	19811118 (198147)	EN			<--
JP 56156292	A	19811202 (198201)	JA			<--
DE 3112060	A	19820304 (198210)	DE			<--
GB 2075533	B	19841017 (198442)	EN			<--
CA 1189081	A	19850618 (198529) #	EN			<--
IT 1136978	B	19860903 (198808)	IT			<--
JP 03014836	B	19910227 (199112)	JA			<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 4281145 A		US 1980-136640	19800402
GB 2075533 A		GB 1981-7429	19810310
JP 03014836 B		JP 1981-48499	19810402
CA 1189081 A		CA 1981-376703	19810501
US 4281145 A		US 1980-136640	19800402
DE 3112060 A		DE 1981-3112060	19810327

PRIORITY APPLN. INFO: US 1980-136640 19800402

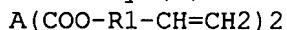
INT. PATENT CLASSIF.:

IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-08 [I,A]; C07F0007-14
 [I,A]; C07F0007-18 [I,A]

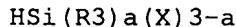
BASIC ABSTRACT:

US 4281145 A UPAB: 20050419
 Production of silylated diesters (I) of formula
 $\text{A}(\text{COO}-\text{R}_1-\text{CH}_2\text{CH}_2-\text{Si}(\text{R}_3)_2(\text{OR}_2))_2$

(where A is cis- or trans-CR=CR, CHR-CHR or R'-substd. phenylene; R is H or 1-8C hydrocarbyl; R' is H, halo or NO₂; R₁ is a direct bond or a 1-8C divalent hydrocarbon radical; R₂ and R₃ are 1-8C hydrocarbyl; a is 0-2) is carried out by (a) reacting a diester (II) of formula



with a halosilane (III) of formula



(where X is halogen) in the presence of a **Pt catalyst**, and (b) adding an alcohol (IV) of formula R₂OH to a refluxing solution of the product in an organic solvent over at least 6 hr. with continuous removal of an azeotrope comprising (IV), solvent, water and HX.

Step (b) is effected by adding (IV) below the surface of the refluxing solution and continuously distilling off the azeotrope to minimise the concentration of HX and unreacted (IV) in the soln; thereby (I) are useful as self-bonding additives for heat-curable or room-temperature-vulcanisable silicone rubber compsns. The process gives higher yields than prior art processes (e.g. US 3773817) and avoids the use of hazardous HSi(OMe)₃. MANUAL CODE: CPI: A06-A00B; A08-M01D; E05-E01; E05-E02; N02-F02;

N05-A; N05-D

L135 ANSWER 62 OF 66 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
 ACCESSION NUMBER: 1981-88201D [48] WPIX
 TITLE: Functional organo-di:chloro:silane
 cpds. production - by reacting di:chloro:silane with alpha-olefin in presence of homogeneous phosphine complex, and treating prod. with ethylenic cpd.
 DERWENT CLASS: A41; E11
 INVENTOR: ASAMI M; MURAOKA T; NAGAI Y; SUGA A; WATANABE H
 PATENT ASSIGNEE: (CHCC-C) CHISSO CORP
 COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
JP 56133297	A	19811019 (198148)*	JA	5		<--
JP 63006075	B	19880208 (198809)	JA			<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 56133297 A		JP 1980-35908 19800321	
JP 63006075 B		JP 1980-35908 19800321	

PRIORITY APPLN. INFO: JP 1980-35908 19800321

INT. PATENT CLASSIF.:

IPC RECLASSIF.: B01J0023-00 [I,A]; B01J0023-00 [I,C]; B01J0027-06 [I,C];
 B01J0027-13 [I,A]; B01J0031-00 [I,A]; B01J0031-00 [I,C];
 B01J0031-16 [I,C]; B01J0031-24 [I,A]; C07F0007-00 [I,C];
C07F0007-14 [I,A]; C09K0003-18 [I,A]; C09K0003-18
 [I,C]; C10M0105-00 [I,C]; C10M0105-76 [I,A]; H01B0003-46
 [I,A]; H01B0003-46 [I,C]

BASIC ABSTRACT:

JP 56133297 A UPAB: 20050419

Method comprises (i) reacting dichlorosilane (I) with 3-20C alpha-olefin (II) in the presence of homogeneous phosphine complex of formula M'X_n(PR₆₃)_m (III) to form alkyldichlorosilane (IV), and (ii) reacting (IV) with ethylenic cpd. of formula R₃CH=CH₂ (V) in the presence of H₂PtCl₆ or homogeneous

phosphine complex of formula M'X_n(PR63)_m (VI) to give functional organodichloro-silane of formula R1R2SiCl₂ (VII).

In the formulae, M' is Ru, Rh, Ni or Pt; X is H, halogen, substd. silyl, CO or aromatic hydrocarbon; R6 is aryl, alkyl or aralkyl; n is 0-4; m is 2-4; 3 up to (n+m) up to 7; R3 is CH₃COOCH₂-, Cl₂CH₂Si-, CH₃COO-, Cl(CH₂)_r where r is 1-10, HpClgSi- where (p+g) is 3, phenyl, CH₂=CH-, F₃C- or H₃COOC-; M' is Ru, Rh, Ni, Pd or Pt; R1 is 3-20C alkyl; R2 is radical derived from (V).

Used as an intermediate for synthesis of organic Si cpds., as a comonomer for silicone oil, resin or rubber, etc.. MANUAL CODE: CPI: A01-A03; E05-E02; N02-F; N05-A; N05-B

=> d ibib ab 63-64

YOU HAVE REQUESTED DATA FROM FILE 'CASREACT, CHEMINFORMRX, HCPLUS, USPATFULL, WPIX, JAPIO, SCISEARCH' - CONTINUE? (Y)/N:y

L135 ANSWER 63 OF 66 JAPIO (C) 2007 JPO on STN
 ACCESSION NUMBER: 1993-112581 JAPIO Full-text
 TITLE: FLUORINATED ORGANIC SILICON COMPOUND AND ITS PRODUCTION
 INVENTOR: KINOSHITA HIROBUMI; YAMAGUCHI KOICHI; SUGANUMA HIDEJI
 PATENT ASSIGNEE(S): SHIN ETSU CHEM CO LTD
 PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 05112581	A	19930507	Heisei	C07F007-12

APPLICATION INFORMATION

STN FORMAT:	JP 1991-298321	19911017
ORIGINAL:	JP03298321	Heisei
PRIORITY APPLN. INFO.:	JP 1991-298321	19911017
SOURCE:	PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1993	

AB PURPOSE: To provide a new compound useful as a surface-treating agent for silica, adhesiveness-improving agent for resist, agent for water-repellent and oil-repellent treatment, intermediate for various silicone compounds, etc.
 CONSTITUTION: The compound of formula I (R is 1-6C alkyl; (a) is 1-7; (b) is 2-8; (c) is 1-3), e.g. the compound of formula II. The compound of formula I can be produced by reacting a chlorosilane of formula III with a fluorinated olefin of formula IV in the presence of a platinum-group metal catalyst such as chloroplatinic acid at 100-120°C.
 COPYRIGHT: (C)1993, JPO&Japio

L135 ANSWER 64 OF 66 JAPIO (C) 2007 JPO on STN
 ACCESSION NUMBER: 1991-077892 JAPIO Full-text
 TITLE: FLUORINE-CONTAINING ORGANIC SILICON COMPOUND AND ITS PREPARATION
 INVENTOR: OYAMA MASAYUKI; TAKAAI TOSHIO; FUJII HIDENORI; KINAMI HITOSHI
 PATENT ASSIGNEE(S): SHIN ETSU CHEM CO LTD
 PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 03077892	A	19910403	Heisei	C07F007-12

APPLICATION INFORMATION

STN FORMAT: JP 1989-214663 19890821
 ORIGINAL: JP01214663 Heisei
 PRIORITY APPLN. INFO.: JP 1989-214663 19890821
 SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1991

AB NEW MATERIAL: A compound of formula I [R is 1-6C alkyl; (n) is 1-6; (m) is 1-3].

EXAMPLE: A compound of formula II. USE: A silica treating agent, a treating agent for the surfaces of glass products and an intermediate for synthesizing fluorine-containing cyclic organic compounds.

PREPARATION: A chlorosilane of formula III is reacted with a fluorine-containing olefin of formula IV preferably in a molar ratio of 1:(1.1-1.3) in the presence of 1×10<SP>-5</SP> to 1×10<SP>-4</SP> of a platinum catalyst at 70-110°C for 5-20hr. COPYRIGHT: (C)1991, JPO&Japio

=> d ibib ab 65-66

YOU HAVE REQUESTED DATA FROM FILE 'CASREACT, CHEMINFORMRX, HCPLUS, USPATFULL, WPIX, JAPIO, SCISEARCH' - CONTINUE? (Y)/N:y

L135 ANSWER 65 OF 66 SCISEARCH COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 1996:688028 SCISEARCH Full-text

THE GENUINE ARTICLE: VH424

TITLE: Syntheses and reactions of metal organics .21. Syntheses of (1H,1H,2H,2H-polyfluoroalkyl)triisocyanate silanes and surface modification of glass

AUTHOR: Yoshino N (Reprint); Kondo Y; Yamauchi T

CORPORATE SOURCE: SCI UNIV TOKYO, FAC ENGN, DEPT IND CHEM, SHINJUKU KU, TOKYO 162, JAPAN (Reprint)

COUNTRY OF AUTHOR: JAPAN

SOURCE: JOURNAL OF FLUORINE CHEMISTRY, (JUL 1996) Vol. 79, No. 1, pp. 87-91.

ISSN: 0022-1139.

PUBLISHER: ELSEVIER SCIENCE SA LAUSANNE, PO BOX 564, 1001 LAUSANNE 1, SWITZERLAND.

DOCUMENT TYPE: Article; Journal

FILE SEGMENT: PHYS

LANGUAGE: English

REFERENCE COUNT: 18

ENTRY DATE: Entered STN: 1996

Last Updated on STN: 1996

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Four silane coupling agents having a fluorocarbon chain and three isocyanate groups as reactive centers, i.e. CF₃(CF₂)₍₃₎CH₂CH₂Si(NCO)₍₃₎ (1), CF₃(CF₂)₍₅₎CH₂CH₂Si(NCO)₍₃₎ (2), CF₃(CF₂)₍₇₎CH₂CH₂Si(NCO)₍₃₎ (3) and CF₃(CF₂)₍₉₎CH₂CH₂Si(NCO)₍₃₎ (4), were prepared by the hydrosilylation reaction of trichlorosilane with the corresponding 1H, 1H,2H- polyfluoro-1-alkene [CF₃(CF₂)_(n)CH=CH₂, n = 3, 5, 7 and 9] in the presence of hydrogen hexachloroplatinate (IV), followed by reaction with silver cyanate. Their application to the surface modification of glass was attempted. From measurements of the contact angles theta for water and oleic acid against a modified glass surface, it was found that the isocyanate-type silane

coupling agents have a higher surface modification ability toward glass than those of methoxy-type silane coupling agents. The highest contact angle on the glass surface modified by each silane coupling agent was obtained employing both a shorter modification time (1/6) and a lower concentration (1/10) of the silane coupling agent solution in comparison with those of methoxy-type silane coupling agents. The oxidation and acid resistance of the modified glass surface were investigated, and the results of the resistance abilities assessed by measuring the contact angle reduction of water and oleic acid were also higher than those of methoxy-type silane coupling agents.

L135 ANSWER 66 OF 66 SCISEARCH COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 1995:131809 SCISEARCH Full-text

THE GENUINE ARTICLE: PN945

TITLE: SYNTHESES AND REACTIONS OF METAL ORGANICS .20. SYNTHESES OF SILANE-COUPLED AGENTS HAVING END-BRANCH FLUOROCARBON CHAIN AND SURFACE MODIFICATION OF GLASS

AUTHOR: YOSHINO N (Reprint); NAKASEKO H; YAMAMOTO Y

CORPORATE SOURCE: SCI UNIV TOKYO, FAC ENGN, DEPT IND CHEM, SHINJUKU KU, TOKYO 162, JAPAN (Reprint)

COUNTRY OF AUTHOR: JAPAN

SOURCE: REACTIVE POLYMERS, (OCT 1994) Vol. 23, No. 2-3, pp. 157-163.

ISSN: 0923-1137.

PUBLISHER: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS.

DOCUMENT TYPE: Article; Journal

FILE SEGMENT: PHYS

LANGUAGE: English

REFERENCE COUNT: 10

ENTRY DATE: Entered STN: 1995

Last Updated on STN: 1995

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Six silane-coupling agents having end-branched fluorocarbon chains:

(CF₃)₂CF(CF₂)₄CH₂CH₂Si(CH₃)(OCH₃)₂ (1);

(CF₃)₂CF(CF₂)₆CH₂CH₂Si(CH₃)(OCH₃)₂ (2);

(CF₃)₂CF(CF₂)₈CH₂CH₂Si(CH₃)(OCH₃)₂ (3); (CF₃)₂CF(CF₂)₄

CH₂CH₂Si(OCH₃)₃ (4); (CF₃)₂CF(CF₂)₆CH₂CH₂Si(OCH₃)₃ (5);

(CF₃)₂CF(CF₂)₈CH₂CH₂Si(OCH₃)₂ (6); were prepared by the

hydrosilylation reaction of dichloro(methyl) silane or trichlorosilane with the corresponding end-branched 1H,1H,2H-polyfluoro-1-alkene

((CF₃)₂CF(CF₂)_n CH=CH₂, (n = 4, 6 and 8) in the presence of hydrogen hexachloroplatinate(VI), followed by reaction with sodium methoxide. The application for the surface modification of glass was attempted using these compounds. From measurements of the contact angles theta (degrees) of

water and oleic acid against a modified glass surface, it was found that the silane-coupling agents have high modification ability for surface modification. The oxidation resistance of the modified glass surface was also investigated.

=> d que nos 139

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L18      STR
L20      294 SEA FILE=CASREACT SSS FUL L18 ( 2129 REACTIONS)
L21      STR
L23      1 SEA FILE=CASREACT SUB=L20 SSS FUL L21 (      5 REACTIONS)
L24      STR
L26      2 SEA FILE=CASREACT SUB=L20 SSS FUL L24 (      6 REACTIONS)
L28      29 SEA FILE=CASREACT ABB=ON PLU=ON L20 AND (PT?/BI,AB OR
          ?PLATIN?/BI,AB OR HPT?/BI,AB)
L29      29 SEA FILE=CASREACT ABB=ON PLU=ON L28 OR L23 OR L26
L31      7 SEA FILE=CASREACT ABB=ON PLU=ON L20 AND (?H2PT?/BI,AB)
L32      31 SEA FILE=CASREACT ABB=ON PLU=ON L31 OR L29
L33      QUE ABB=ON PLU=ON JUST, E?/AU
L34      QUE ABB=ON PLU=ON GIESSLER, S?/AU
L35      QUE ABB=ON PLU=ON JENKNER, P?/AU
L36      QUE ABB=ON PLU=ON (DEGUSSA OR (DE(W)GUSSA))/CS,SO,PA
L39      2 SEA FILE=CASREACT ABB=ON PLU=ON L32 AND (L33 OR L34 OR L35
          OR L36)

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=> d que nos 149

```

L18      STR
L33      QUE ABB=ON PLU=ON JUST, E?/AU
L34      QUE ABB=ON PLU=ON GIESSLER, S?/AU
L35      QUE ABB=ON PLU=ON JENKNER, P?/AU
L36      QUE ABB=ON PLU=ON (DEGUSSA OR (DE(W)GUSSA))/CS,SO,PA
L43      117 SEA FILE=CHEMINFORMRX SSS FUL L18 ( 385 REACTIONS)
L46      4 SEA FILE=CHEMINFORMRX ABB=ON PLU=ON L43 AND ((PT?/BI,AB OR
          ?PLATIN?/BI,AB OR HPT?/BI,AB) OR (?H2PT?/BI,AB))
L47      0 SEA FILE=CHEMINFORMRX ABB=ON PLU=ON L43 AND ((PT?/TI OR
          ?PLATIN?/TI OR HPT?/TI) OR (?H2PT?/TI))
L48      4 SEA FILE=CHEMINFORMRX ABB=ON PLU=ON L46 OR L47
L49      0 SEA FILE=CHEMINFORMRX ABB=ON PLU=ON L48 AND (L33 OR L34 OR
          L35 OR L36)

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=> d que 186

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L1      1 SEA FILE=HCAPLUS ABB=ON PLU=ON US2006-583553/APPS
L3      TRANSFER PLU=ON L1 1- RN :         9 TERMS
L4      9 SEA FILE=REGISTRY ABB=ON PLU=ON L3
L5      1 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND "CL3 H SI"/MF
L6      1 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND F/ELS AND CL/ELS
L7      7 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND F/ELS
L8      6 SEA FILE=REGISTRY ABB=ON PLU=ON L7 NOT L6
L9      1 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND PT/ELS
L27      QUE ABB=ON PLU=ON PT? OR ?PLATIN? OR HPT?
L30      QUE ABB=ON PLU=ON ?H2PT?
L33      QUE ABB=ON PLU=ON JUST, E?/AU
L34      QUE ABB=ON PLU=ON GIESSLER, S?/AU
L35      QUE ABB=ON PLU=ON JENKNER, P?/AU
L36      QUE ABB=ON PLU=ON (DEGUSSA OR (DE(W)GUSSA))/CS,SO,PA
L51      QUE ABB=ON PLU=ON HYDROSIL? OR (HYDRO(W)(SILAT? OR SIL
          YLAT?))
L52      QUE ABB=ON PLU=ON ?FLUOROLEFIN? OR ?FLUOROALKEN? OR (
          (?FLUOR? OR PERFLUOR? OR OLIGOFLUOR? OR DIFLUOR? OR TRIFL
          UOR?) (3A) (?OLEFIN? OR ?ALKEN?))
L53      QUE ABB=ON PLU=ON ?CHLOROSIL? OR ((?CHLOR? OR DICHLOR?
          OR TRICHLOR?) (3A) (?SILYL? OR ?SILAN?)) OR (?SILYL?(1T)?C
          HLORID?) OR (?SILYL?(1W)?CHLORID?)

```

L54 QUE ABB=ON PLU=ON ?CL6PT?
 L55 QUE ABB=ON PLU=ON ?HEXACHLOROPLATIN?
 L56 QUE ABB=ON PLU=ON ?CATALY?
 L57 QUE ABB=ON PLU=ON F OR ?FLUORO? OR ?FLUORID?
 L58 QUE ABB=ON PLU=ON ?FLUORIN?
 L59 QUE ABB=ON PLU=ON CL OR CHLORINAT? OR ?CHLORO? OR ?CHLORID?
 L60 QUE ABB=ON PLU=ON SI OR SILICON
 L61 QUE ABB=ON PLU=ON "ALKENES, REACTIONS"+PFT,OLD,NEW,NT/CT
 L62 QUE ABB=ON PLU=ON ALKENES+PFT,OLD,NEW/CT (L) (L57 OR L58)
 L63 QUE ABB=ON PLU=ON L61 (L) (L57 OR L58)
 L64 QUE ABB=ON PLU=ON HYDROSILYLATION+PFT,OLD,NEW,NT/CT
 L65 QUE ABB=ON PLU=ON "HYDROSILYLATION CATALYSTS"+PFT,OLD,NEW,NT/CT
 L67 14 SEA FILE=HCAPLUS ABB=ON PLU=ON L6 (L) (PREP+NT)/RL
 L68 431 SEA FILE=HCAPLUS ABB=ON PLU=ON L8 (L) (RACT+NT)/RL
 L69 2354 SEA FILE=HCAPLUS ABB=ON PLU=ON L5 (L) (RACT+NT)/RL
 L70 9 SEA FILE=HCAPLUS ABB=ON PLU=ON L68 AND L69 AND L67
 L71 182 SEA FILE=HCAPLUS ABB=ON PLU=ON L9(L)CAT/RL
 L72 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L70 AND L71
 L73 1594 SEA FILE=HCAPLUS ABB=ON PLU=ON ((L62 OR L63)) (L) (RACT+NT)/RL
 L74 1963 SEA FILE=HCAPLUS ABB=ON PLU=ON L68 OR L73
 L75 45 SEA FILE=HCAPLUS ABB=ON PLU=ON L74 (L)L51
 L76 36 SEA FILE=HCAPLUS ABB=ON PLU=ON L74 AND L64
 L77 31 SEA FILE=HCAPLUS ABB=ON PLU=ON L74 AND L69
 L78 875 SEA FILE=HCAPLUS ABB=ON PLU=ON L65 (L) (L27 OR L30 OR L54 OR L55)
 L79 11 SEA FILE=HCAPLUS ABB=ON PLU=ON (L75 OR L76 OR L77) AND L78
 L80 19 SEA FILE=HCAPLUS ABB=ON PLU=ON (L75 OR L76 OR L77) AND ((PT?/OBI OR ?PLATIN?/OBI OR HPT?/OBI) OR (?H2PT?/OBI) OR (?CL6PT?/OBI) OR (?HEXACHLOROPLATIN?/OBI))
 L81 24 SEA FILE=HCAPLUS ABB=ON PLU=ON L70 OR L72 OR L79 OR L80
 L82 24 SEA FILE=HCAPLUS ABB=ON PLU=ON L81 AND (L27 OR L30 OR (L51 OR L52 OR L53 OR L54 OR L55 OR L56 OR L57 OR L58 OR L59 OR L60 OR L61 OR L62 OR L63 OR L64 OR L65))
 L83 24 SEA FILE=HCAPLUS ABB=ON PLU=ON (L81 OR L82)
 L84 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L83 AND (L33 OR L34 OR L35 OR L36)
 L85 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L84 AND L1
 L86 2 SEA FILE=HCAPLUS ABB=ON PLU=ON (L84 OR L85)

=> d his 198

(FILE 'USPATFULL, USPATOLD, USPAT2' ENTERED AT 13:34:34 ON 25 OCT 2007)
 L98 1 S L97 AND L33-L36

=> d que 198

L1 1 SEA FILE=HCAPLUS ABB=ON PLU=ON US2006-583553/APPS
 L3 TRANSFER PLU=ON L1 1- RN : 9 TERMS
 L4 9 SEA FILE=REGISTRY ABB=ON PLU=ON L3
 L5 1 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND "CL3 H SI"/MF
 L6 1 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND F/ELS AND CL/ELS
 L7 7 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND F/ELS
 L8 6 SEA FILE=REGISTRY ABB=ON PLU=ON L7 NOT L6
 L9 1 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND PT/ELS
 L33 QUE ABB=ON PLU=ON JUST, E?/AU

L34 QUE ABB=ON PLU=ON GIESSLER, S?/AU
 L35 QUE ABB=ON PLU=ON JENKNER, P?/AU
 L36 QUE ABB=ON PLU=ON (DEGUSSA OR (DE(W)GUSSA))/CS, SO, PA
 L66 QUE ABB=ON PLU=ON C07F0007-14/IPC
 L89 243 SEA L66
 L90 226 SEA L8
 L91 101 SEA L6
 L92 7 SEA L89 AND (L90 OR L91)
 L93 1312 SEA L5
 L94 6 SEA L92 AND L93
 L95 81 SEA L9
 L96 2 SEA L92 AND L95
 L97 7 SEA L92 OR L94 OR L96
 L98 1 SEA L97 AND (L33 OR L34 OR L35 OR L36)

=> d que 1118

L27 QUE ABB=ON PLU=ON PT? OR ?PLATIN? OR HPT?
 L30 QUE ABB=ON PLU=ON ?H2PT?
 L33 QUE ABB=ON PLU=ON JUST, E?/AU
 L34 QUE ABB=ON PLU=ON GIESSLER, S?/AU
 L35 QUE ABB=ON PLU=ON JENKNER, P?/AU
 L36 QUE ABB=ON PLU=ON (DEGUSSA OR (DE(W)GUSSA))/CS, SO, PA
 L51 QUE ABB=ON PLU=ON HYDROSIL? OR (HYDRO(W) (SILAT? OR SILYLAT?))
 L52 QUE ABB=ON PLU=ON ?FLUOROLEFIN? OR ?FLUOROALKEN? OR (?FLUOR? OR PERFLUOR? OR OLIGOFLUOR? OR DIFLUOR? OR TRIFLUOR?) (3A) (?OLEFIN? OR ?ALKEN?))
 L53 QUE ABB=ON PLU=ON ?CHLOROSIL? OR ((?CHLOR? OR DICHLOR? OR TRICHLOR?) (3A) (?SILYL? OR ?SILAN?)) OR (?SILYL?(1T)?CHLORID?) OR (?SILYL?(1W)?CHLORID?)
 L54 QUE ABB=ON PLU=ON ?CL6PT?
 L55 QUE ABB=ON PLU=ON ?HEXACHLOROPLATIN?
 L56 QUE ABB=ON PLU=ON ?CATALY?
 L57 QUE ABB=ON PLU=ON F OR ?FLUORO? OR ?FLUORID?
 L58 QUE ABB=ON PLU=ON ?FLUORIN?
 L59 QUE ABB=ON PLU=ON CL OR CHLORINAT? OR ?CHLORO? OR ?CHLORID?
 L60 QUE ABB=ON PLU=ON SI OR SILICON
 L66 QUE ABB=ON PLU=ON C07F0007-14/IPC
 L101 QUE ABB=ON PLU=ON N02-F/MC
 L102 QUE ABB=ON PLU=ON (A678(P)Q421)/M0,M1,M2,M3,M4,M5,M6
 L103 QUE ABB=ON PLU=ON (H721(P)M730(P)(H601 OR H609 OR H685 OR H684 OR H689))/M0,M1,M2,M3,M4,M5,M6
 L104 QUE ABB=ON PLU=ON (B114(P)M730(P)(B751 OR B752))/M0,M1,M2,M3,M4,M5,M6
 L105 QUE ABB=ON PLU=ON (B414(P)M720(P)N213(P)(H601 OR H509 OR H684 OR H685 OR H689))/M0,M1,M2,M3,M4,M5,M6
 L106 2 SEA FILE=WPIX ABB=ON PLU=ON L102 AND L103 AND L104 AND L105
 L107 362 SEA FILE=WPIX ABB=ON PLU=ON C07F0007-14/IPC
 L108 38 SEA FILE=WPIX ABB=ON PLU=ON L107 AND L105
 L109 28 SEA FILE=WPIX ABB=ON PLU=ON L108 AND (L101 OR L102)
 L110 2 SEA FILE=WPIX ABB=ON PLU=ON L103 AND L104 AND L105 AND (L101 OR L102)
 L111 29 SEA FILE=WPIX ABB=ON PLU=ON L106 OR L109 OR L110
 L112 20 SEA FILE=WPIX ABB=ON PLU=ON L51 (10A) L52
 L113 2 SEA FILE=WPIX ABB=ON PLU=ON L112 (20A)L53
 L114 30 SEA FILE=WPIX ABB=ON PLU=ON L111 OR L113
 L115 28 SEA FILE=WPIX ABB=ON PLU=ON L114 AND L66
 L116 30 SEA FILE=WPIX ABB=ON PLU=ON L114 OR L115

L117 30 SEA FILE=WPIX ABB=ON PLU=ON L116 AND (L27 OR L30 OR (L51 OR
L52 OR L53 OR L54 OR L55 OR L56 OR L57 OR L58 OR L59 OR L60))
L118 6 SEA FILE=WPIX ABB=ON PLU=ON L117 AND (L33 OR L34 OR L35 OR
L36)

=> d his l134

(FILE 'MEDLINE, BIOSIS, EMBASE, PASCAL, SCISEARCH, CONFSCI, DISSABS'
ENTERED AT 13:53:33 ON 25 OCT 2007)

L134 0 S L133 AND L33-L36

=> d que l134

L27 QUE ABB=ON PLU=ON PT? OR ?PLATIN? OR HPT?
L30 QUE ABB=ON PLU=ON ?H2PT?
L33 QUE ABB=ON PLU=ON JUST, E?/AU
L34 QUE ABB=ON PLU=ON GIESSLER, S?/AU
L35 QUE ABB=ON PLU=ON JENKNER, P?/AU
L36 QUE ABB=ON PLU=ON (DEGUSSA OR (DE(W)GUSSA))/CS, SO, PA
L51 QUE ABB=ON PLU=ON HYDROSIL? OR (HYDRO(W) (SILAT? OR SIL
YLAT?))
L52 QUE ABB=ON PLU=ON ?FLUOROOLEFIN? OR ?FLUOROALKEN? OR (
(?FLUOR? OR PERFLUOR? OR OLIGOFLUOR? OR DIFLUOR? OR TRIFL
UOR?) (3A) (?OLEFIN? OR ?ALKEN?))
L53 QUE ABB=ON PLU=ON ?CHLOROSIL? OR ((?CHLOR? OR DICHLOR?
OR TRICHLOR?) (3A) (?SILYL? OR ?SILAN?)) OR (?SILYL?(1T)?C
HLORID?) OR (?SILYL?(1W)?CHLORID?)
L54 QUE ABB=ON PLU=ON ?CL6PT?
L55 QUE ABB=ON PLU=ON ?HEXACHLOROPLATIN?
L56 QUE ABB=ON PLU=ON ?CATALY?
L57 QUE ABB=ON PLU=ON F OR ?FLUORO? OR ?FLUORID?
L58 QUE ABB=ON PLU=ON ?FLUORIN?
L59 QUE ABB=ON PLU=ON CL OR CHLORINAT? OR ?CHLORO? OR ?CHL
ORID?
L60 QUE ABB=ON PLU=ON SI OR SILICON
L130 26 SEA L51(15A) L52
L131 6 SEA L130 (20A) L53
L132 5 SEA L131 AND (L27 OR L30 OR L54 OR L55)
L133 5 SEA L132 AND (L56 OR L60 OR (L57 OR L58) OR L59)
L134 0 SEA L133 AND (L33 OR L34 OR L35 OR L36)

=> d his l129

(FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 13:52:34 ON 25 OCT 2007)

L129 0 S L127-L128

=> d que l129

L1 1 SEA FILE=HCAPLUS ABB=ON PLU=ON US2006-583553/APPS
L3 TRANSFER PLU=ON L1 1- RN : 9 TERMS
L4 9 SEA FILE=REGISTRY ABB=ON PLU=ON L3
L5 1 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND "CL3 H SI"/MF
L6 1 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND F/ELS AND CL/ELS
L7 7 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND F/ELS
L8 6 SEA FILE=REGISTRY ABB=ON PLU=ON L7 NOT L6
L125 2 SEA L8
L126 27 SEA L5
L127 0 SEA L6
L128 0 SEA L125 AND L126
L129 0 SEA (L127 OR L128)

=> dup rem 139 149 186 198 1118 1134 1129
L49 HAS NO ANSWERS
L134 HAS NO ANSWERS
L129 HAS NO ANSWERS
DUPLICATE IS NOT AVAILABLE IN 'CHEMINFORMRX'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
FILE 'CASREACT' ENTERED AT 14:22:41 ON 25 OCT 2007
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FILE 'WPIX' ENTERED AT 14:22:41 ON 25 OCT 2007
COPYRIGHT (C) 2007 THE THOMSON CORPORATION
PROCESSING COMPLETED FOR L39
PROCESSING COMPLETED FOR L49
PROCESSING COMPLETED FOR L86
PROCESSING COMPLETED FOR L98
PROCESSING COMPLETED FOR L118
PROCESSING COMPLETED FOR L134 □
PROCESSING COMPLETED FOR L129
L136 7 DUP REM L39 L49 L86 L98 L118 L134 L129 (4 DUPLICATES REMOVED)
 ANSWERS '1-2' FROM FILE CASREACT
 ANSWER '3' FROM FILE USPATFULL
 ANSWERS '4-7' FROM FILE WPIX

=> file stnguide
FILE 'STNGUIDE' ENTERED AT 14:22:54 ON 25 OCT 2007
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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Oct 19, 2007 (20071019/UP).

=> d ibib ab fhit 1-2

YOU HAVE REQUESTED DATA FROM FILE 'CASREACT, USPATFULL, WPIX' - CONTINUE? (Y)/N:y

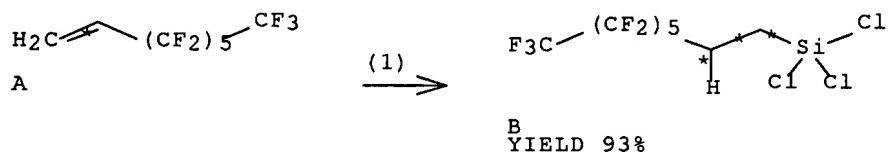
L136 ANSWER 1 OF 7 CASREACT COPYRIGHT 2007 ACS on STN DUPLICATE 1
 ACCESSION NUMBER: 143:60090 CASREACT Full-text
 TITLE: Specific process for preparing silicon compounds
 bearing fluoroalkyl groups by hydrosilylation
 INVENTOR(S): Just, Eckhard; Giessler, Sabine;
Jenkner, Peter
 PATENT ASSIGNEE(S): Degussa A.-G., Germany
 SOURCE: PCT Int. Appl., 19 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005058919	A1	20050630	WO 2004-EP52608	20041021
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10361893	A1	20050721	DE 2003-10361893	20031219
EP 1694687	A1	20060830	EP 2004-791275	20041021
EP 1694687	B1	20070711		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1894262	A	20070110	CN 2004-80037997	20041021
JP 2007514708	T	20070607	JP 2006-544399	20041021
AT 366736	T	20070815	AT 2004-791275	20041021
US 2007112213	A1	20070517	US 2006-583553	20060619
PRIORITY APPLN. INFO.:			DE 2003-10361893	20031219
			WO 2004-EP52608	20041021

OTHER SOURCE(S): MARPAT 143:60090

AB The present invention relates to a process for preparing silicon compds. bearing fluoroalkyl groups by hydrosilylation of a fluoroolefin in the presence of a hydrosilylation catalyst, which comprises initially charging and heating a hydrogen chlorosilane, then metering in the fluoroolefin and reacting the reaction mixture and subsequently isolating the hydrosilylation product. Thus, platinum divinyltetramethyldisiloxane complex catalyzed hydrosilylation of 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctene with trichlorosilane in xylene at 5.7-7.5 bar at 106°-124° gave 93% trichloro(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)silane in 4.8h.

RX(1) OF 1 A ==> B



RX(1) RCT A 25291-17-2
RGT C 10025-78-2 HSiCl3
PRO B 78560-45-9
CAT 81032-58-8 Platinum, bis[1,3-bis(η 2-ethenyl)-1,1,3,3-tetramethyldisiloxane]-
SOL 1330-20-7 Xylene
CON 4.8 hours, 106 - 124 deg C, 5.7 - 7.5 atm
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L136 ANSWER 2 OF 7 CASREACT COPYRIGHT 2007 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 128:308604 CASREACT Full-text
TITLE: Fluoroalkyl-containing organosilicon compounds and
 their use
INVENTOR(S): Jenkner, Peter; Frings, Albert-Johannes;
 Horn, Michael; Monkiewicz, Jaroslaw; Standke, Burkhard
PATENT ASSIGNEE(S): Huls Aktiengesellschaft, Germany; Degussa AG
SOURCE: Eur. Pat. Appl., 10 pp.
 CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

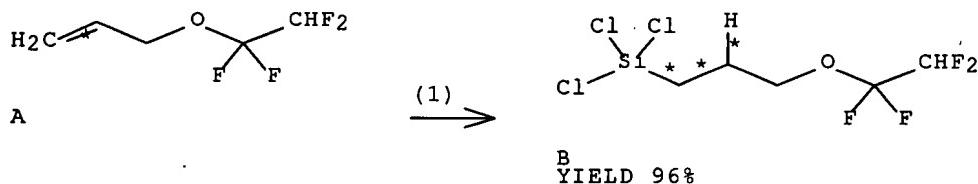
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 838467	A1	19980429	EP 1997-115056	19970830
EP 838467	B1	20030402		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
DE 19644561	A1	19980430	DE 1996-19644561	19961026
DE 19644561	C2	20031016		
TW 506972	B	20021021	TW 1997-86110794	19970729
JP 10130278	A	19980519	JP 1997-230753	19970827
AT 236170	T	20030415	AT 1997-115056	19970830
ES 2191796	T3	20030916	ES 1997-115056	19970830
US 5869728	A	19990209	US 1997-955290	19971021
CN 1180706	A	19980506	CN 1997-121473	19971023
CA 2219606	A1	19980426	CA 1997-2219606	19971024
US 6255516	B1	20010703	US 1998-207988	19981209

PRIORITY APPLN. INFO.: DE 1996-19644561 19961026
US 1997-955290 19971021

AB The preparation of fluoroalkyl group containing organosilicon compds. via reaction of fluoro olefin with silicon-hydrogen bond containing organosilane in the presence of platinum(0) catalyst is described. Thus, Pt (0)-divinyltetramethyldisiloxane catalyzed reaction of 1,1,2,2-tetrafluoroethyl

allyl ether with trichlorosilane in xylene gave 96% 3-(1,1,2,2-tetrafluoroethoxy)propyltrichlorosilane.

RX(1) OF 1 A ==> B



RX(1) RCT A 1428-33-7
 RGT C 10025-78-2 HSiCl₃
 PRO B 756-76-3
 CAT 81032-58-8 Platinum, bis[1,3-bis(η 2-ethenyl)-1,1,3,3-tetramethyldisiloxane]-
 SOL 1330-20-7 Xylene
 REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib ab hitstr 3

YOU HAVE REQUESTED DATA FROM FILE 'CASREACT, USPATFULL, WPIX' - CONTINUE? (Y)/N:y

L136 ANSWER 3 OF 7 USPATFULL on STN

ACCESSION NUMBER: 2001:103025 USPATFULL Full-text
 TITLE: Process for preparing fluoroalkyl-containing organosilicon compounds, and their use
 INVENTOR(S): Jenkner, Peter, Rheinfelden, Germany, Federal Republic of
 Frings, Albert-Johannes, Rheinfelden, Germany, Federal Republic of
 Horn, Michael, Rheinfelden, Germany, Federal Republic of
 Monkiewicz, Jaroslaw, Rheinfelden, Germany, Federal Republic of
 Standke, Burkhard, Loerrach, Germany, Federal Republic of
 PATENT ASSIGNEE(S): Huels Aktiengesellschaft, Marl, Germany, Federal Republic of (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6255516	B1	20010703
APPLICATION INFO.:	US 1998-207988		19981209 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1997-955290, filed on 21 Oct 1997, now patented, Pat. No. US 5869728		

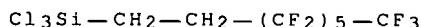
NUMBER DATE

PRIORITY INFORMATION: DE 1996-19644561 19961026
 DOCUMENT TYPE: Utility
 FILE SEGMENT: GRANTED
 PRIMARY EXAMINER: Shaver, Paul F.
 LEGAL REPRESENTATIVE: Oblon, Spivak, McClelland, Maier & Neustadt, P.C.
 NUMBER OF CLAIMS: 18
 EXEMPLARY CLAIM: 1
 LINE COUNT: 504

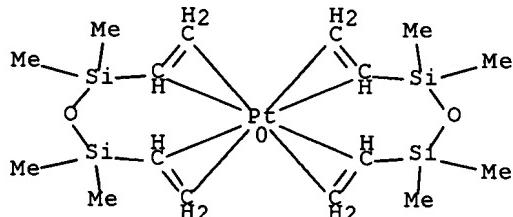
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Fluoroalkyl organosilicon compounds are prepared by reacting fluoroolefins with organosilicon compounds that contain at least one H-Si group, in the presence of a Pt(0) complex catalyst. Further, fluoroalkylalkoxy organosilicon compounds are prepared by esterifying fluoroalkyl organosilicon compounds. The process proceeds uniformly under mild conditions with high yields and selectivities.

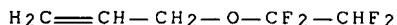
IT 78560-45-9P
 (preparation of)
 RN 78560-45-9 USPATFULL
 CN Silane, trichloro(3,3,4,4,5,5,6,6,7,7,8,8-tridecafluoroctyl)- (CA INDEX NAME)



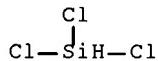
IT 81032-58-8
 (preparation of fluoroalkyl-containing organosilicon compds. via platinum catalyzed reaction of silicon-hydrogen bond containing organosilane with fluoro olefin)
 RN 81032-58-8 USPATFULL
 CN Platinum, bis[1,3-bis(η 2-ethenyl)-1,1,3-tetramethyldisiloxane]- (9CI) (CA INDEX NAME)



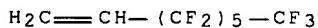
IT 1428-33-7, 1,1,2,2-Tetrafluoroethyl allyl ether
10025-78-2, Trichlorosilane 25291-17-2
 (preparation of fluoroalkyl-containing organosilicon compds. via platinum catalyzed reaction of silicon-hydrogen bond containing organosilane with fluoro olefin)
 RN 1428-33-7 USPATFULL
 CN 1-Propene, 3-(1,1,2,2-tetrafluoroethoxy)- (CA INDEX NAME)



RN 10025-78-2 USPATFULL
 CN Silane, trichloro- (CA INDEX NAME)



RN 25291-17-2 USPATFULL
 CN 1-Octene, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro- (CA INDEX NAME)



=> d iall abeq tech abex fraghitstr 4-7
 YOU HAVE REQUESTED DATA FROM FILE 'CASREACT, USPATFULL, WPIX' - CONTINUE? (Y)/N:y

L136 ANSWER 4 OF 7 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
 ACCESSION NUMBER: 2003-442609 [42] WPIX
 DOC. NO. CPI: C2003-117421 [42]
 TITLE: Hydrosilylation of unsaturated aliphatic compounds, e.g. for production of chloropropyl-trichloro-silane, involves using a zero-valent platinum complex catalyst modified by addition of organic amide, amine or nitrile
 DERWENT CLASS: E11
 INVENTOR: BARFURTH D; GIESSLER S; MACK H
 PATENT ASSIGNEE: (DEGS-C) DEGUSSA AG
 COUNTRY COUNT: 31

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
DE 10243180	A1	20030424	(200342)*	DE	9[0]	
EP 1306381	A1	20030502	(200342)	DE		
US 20030100784	A1	20030529	(200342)	EN		
US 6858746	B2	20050222	(200515)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
DE 10243180	A1	DE 2002-10243180	20020918
EP 1306381	A1	EP 2002-22052	20021002

US 20030100784 A1
US 6858746 B2

US 2002-267819 20021010
US 2002-267819 20021010

PRIORITY APPLN. INFO: DE 2001-10149967 20011010
DE 2002-10243180 20020918

INT. PATENT CLASSIF.:

IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-08 [I,A]; C07F0007-14
[I,A]; C07F0007-18 [I,A]

BASIC ABSTRACT:

DE 10243180 A1 UPAB: 20050903

NOVELTY - A method for the hydrosilylation of unsaturated aliphatic compounds in presence of a zero-valent platinum (Pt(0)) complex catalyst, in which the reaction is also carried out in the presence of organic amide(s), amine(s) or nitrile(s).

USE - For the production of organofunctional organosilicon compounds, e.g. 3-chloropropyl-chlorosilanes which are important intermediates for the production of other organofunctional silanes.

ADVANTAGE - The use of amide, amine or nitrile additives with zero-valent platinum complex catalysts enables the simple and economical hydrosilylation of unsaturated organic compounds to give the required products (e.g. 3-chloropropyl- chlorosilanes) in good yield and purity and with reduced formation of unwanted by-products which may be difficult to separate. MANUAL CODE: CPI: E05-E01; E05-E02; N02-F; N05-D; N05-E03;

N07-D

TECH

ORGANIC CHEMISTRY - Preferred Starting Materials: Unsaturated compounds of formula X-(CH₂)_n-C(R₁)=CH₂ (I) and hydrogen-silanes of formula

H_{4-a-b}SiRaY_b (II);

X = H, C1, Br, CN, 1-20C perfluoroalkyl,

R₁₀-(CH₂CHR₁₀O)_y-, 2,3-epoxypropyl or CH₂=CRCOO-;

R₁ = H or 1-4C alkyl;

n = 0-3;

y = 0-30;

R = 1-16C alkyl (linear, branched or cyclic) or aryl;

Y = C1, Br, methoxy or ethoxy;

a, b = 0, 1, 2 or 3;

(a+b) = 1-3

, especially 3-chloropropene-1 or 3-chloro

-2-methyl-propene-1 (I) and trichlorosilane,

methylchlorosilane or dimethylchlorosilane (II).

Preferred Catalyst: A platinum(0)-

divinyltetramethyldisiloxane complex or platinum

(0)-divinyltetramethyldisiloxane of formula Pt2

((CH₂=CH)(CH₃)₂Si)O)₃, preferably as a solution in a ketone or alcohol with a Pt content of 0.1-10 wt%.

Preferred Additives: Amides of formula R₂CONR₃R₄ (III), amines of formula R₅-NR₆R₇ (IV) or nitriles of formula R₈-CN (V), in which

R₂ = H, 1-16C alkyl (linear, branched or cyclic), 2-8C alkenyl or aryl;

R₃-R₇ = H, 1-8C alkyl, 2-8C alkenyl or aryl;

R₈ = 1-16C alkyl (linear, branched or cyclic)

, especially dimethylformamide, dimethylacetamide, tert.-butylamine,

N,N-dimethyl-butylamine, triethylamine or butyronitrile.

Preferred Method: Reaction at 10-200degrees C and 1-50 bar, with a mol ratio of (I):(II) = (20:1)-(1:5), a mol ratio of (III/IV/V):Pt =

(10:1)-(1:10) and a mol ratio of Pt:(II) = (1:1010)-(1:102)

(based on H-Si groups).

The additive (III/IV/V) is added to the catalyst solution and this mixture is then added to a mixture of (I) and (II).

A preferred process involves reacting 3-chloropropene-1 with a chlorosilane (II) in presence of a catalyst and additive

(III/IV/V) as above (preferably using a solution containing both catalyst and additive), then separating the hydrosilylation product from the reaction mixture and esterifying it with an alcohol (preferably methanol, ethnaol or 2-methoxyethanol).

ABEX EXAMPLE - A mixture of 114.8 g allyl chloride and 172.5 g methyl-dichlorosilane (II) was treated at room temperature (RT) with 0.48 g Karstedt-type catalyst (CPC072 (TM)), i.e. Pt(0)-divinyltetramethyldisiloxane in xylene (2% Pt), modified with 1 mol N,N-dimethylacetamide per mol Pt, using a mol ratio of Pt:(II) = 1:30000. The mixture was then heated to 44-46degrees C, reacted for 4 hours (temperature = 107degrees C after 2 hours) and worked up by distillation, to give a low-boiling fraction (50-55degrees C) followed by 233.6 g (81.1%) chloropropyl-methyl-dichloro-silane (68-70degrees C at 20 mbar) with a GC purity (peak areas) of 97.9%. If the unmodified catalyst was used (no amide), the yield was reduced to 49% (purity 98%), with a selectivity of 50%.

AN.S DCR-200553

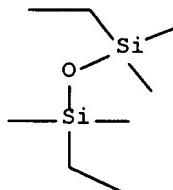
CN.S 1,1,3,3-Tetramethyl-1,3-divinyl-disiloxane platinum (0);
PLATINUM-1,3-DIVINYL-1,1,3,3-TETRAMETHYLDISILOXANE COMPLEX

SDCN RA00AL

CM 1

Pt

CM 2



L136 ANSWER 5 OF 7 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
 ACCESSION NUMBER: 2003-681063 [65] WPIX
 DOC. NO. CPI: C2003-186225 [65]
 TITLE: Production of 3-functionalized organosilanes,
 e.g. trichloro(3-chloropropyl)
silane, from allyl compound and (un)substituted
 silane in presence of heterogeneous platinum
catalyst, is carried out in reaction column
 DERWENT CLASS: E11
 INVENTOR: BATZ-SOHN C; SONNENSCHEIN R
 PATENT ASSIGNEE: (DEGS-C) DEGUSSA AG
 COUNTRY COUNT: 31

PATENT INFORMATION:

PATENT NO	KIND DATE	WEEK	LA	PG	MAIN IPC
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DE 10153795	A1	20030522	(200365)*	DE	5 [2]
CN 1417212	A	20030514	(200382)	ZH	
EP 1316557	A1	20030604	(200382)	DE	
JP 2003137892	A	20030514	(200382)	JA	8
EP 1316557	B1	20050112	(200505)	DE	
DE 50201986	G	20050217	(200514)	DE	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
DE 10153795 A1		DE 2001-10153795	20011031
DE 50201986 G		DE 2002-50201986	20020920
EP 1316557 A1		EP 2002-21004	20020920
EP 1316557 B1		EP 2002-21004	20020920
DE 50201986 G		EP 2002-21004	20020920
JP 2003137892 A		JP 2002-314495	20021029
CN 1417212 A		CN 2002-146974	20021030

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 50201986 G	Based on	EP 1316557 A

PRIORITY APPLN. INFO: DE 2001-10153795 20011031

INT. PATENT CLASSIF.:

MAIN: C07F007-08
 IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-08 [I,A]; C07F0007-12 [I,A];
C07F0007-14 [I,A]; C07F0007-18 [I,A]

BASIC ABSTRACT:

DE 10153795 A1 UPAB: 20051110

NOVELTY - Production of 3-functionalized organosilanes (I) comprises adding allyl halide, cyanide, thiocyanate, (thio)alcohol, (thio)ether or amine compounds (II) to (un)substituted silanes (III) at 1-25 bar in the presence of a heterogeneous platinum catalyst. The reaction is carried out in a reaction column.

DETAILED DESCRIPTION - Production of 3-functionalized organosilanes (I) comprises adding allyl compounds of formula (II) to (un)substituted silanes of formula (III) at 1-25 bar in the presence of a heterogeneous platinum catalyst. The reaction is carried out in a reaction column.

H₂C=CH-CH₂X (II)R₂R₃R₄SiH (III)X = Cl, Br, I, F, CN, SCN, SH, SR, OH, NRR₁, OR;R, R₁ = 1-6C alkyl or 3-7C alkyl; andR₂-R₄ = H, halogen, 1-6C (halo)alkyl, 3-6C allyl, 1-4C alkoxy, phenyl, aryl or aralkyl.

USE - The process is used for producing 3-functionalized organosilanes (I), e.g. trichloro(3-chloropropyl)silane.

ADVANTAGE - In preparing trichloro(3-chloropropyl)silane (IA) by reacting allyl chloride (IIA) with trichlorosilane (IIIA), 25-30 mole.% (IIA) is converted to propene, corresponding to (2.33-3):1 selectivity. Reaction under pressure to prevent propene formation results in quantitative reaction of propene with the silane e.g. to propyltrichlorosilane (IV), which uses 28% trichlorosilane with respect to the amount for preparing (IA). Using excess (IIA) interferes with distillation. Reaction in a column avoids these drawbacks and saves capital costs. It greatly increases the selectivity and minimizes (IV) formation. The product mixture is almost free from (IIA).

DESCRIPTION OF DRAWINGS - The drawing shows the reaction column used,

with quantities as given in the example. (Drawing includes non-English language text).

MANUAL CODE: CPI: E05-E01; E05-E02; E11-F; N02-F02; N07-D

ABEX EXAMPLE - The column had 16 theoretical plates, with reaction zone with catalyst packing between separation zones with a condenser (plate 1) at the top and vaporizer (plate 16) at the bottom. It operated with a temperature profile of 90-190 degrees C at 5 bar absolute. There was a slight temperature increase in the main reaction zone (on plates 7 and 8). It was charged with allyl chloride and trichlorosilane. - Allyl chloride reacted completely and a high excess of trichlorosilane could be attained on each plate. With feeds of 100 kg/hour allyl chloride at plate 7 and 216 kg/hour trichlorosilane at plate 9, the reaction gave 314.0 kg/hour product at plate 16 and 2.0 kg/hour propene at plate 1.

AN.S DCR-140

CN.P PLATINUM

SDCN R03247

L136 ANSWER 6 OF 7 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
 ACCESSION NUMBER: 2002-645730 [70] WPIX
 DOC. NO. CPI: C2002-182427 [70]
 TITLE: Production of 3-functionalized propyl silanes comprises reacting allylic compound with large excess of silane compound to increase selectivity
 DERWENT CLASS: E11
 INVENTOR: ALBERT M; BATZ-SOHN C; MICHEL R; PANSTER P; VRYENS I; BATZ-ZOEN C; MICHAEL R; PANST P
 PATENT ASSIGNEE: (DEGS-C) DEGUSSA AG
 COUNTRY COUNT: 36

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
EP 1229039	A1	20020807	(200270)*	DE	14[3]	
CZ 2002000388	A3	20020911	(200270)	CS		
DE 10104966	A1	20020808	(200270)	DE		
US 6472549	B1	20021029	(200274)	EN		
JP 2002302495	A	20021018	(200301)	JA	8	
CN 1369497	A	20020918	(200303)	ZH		
KR 2002064867	A	20020810	(200309)	KO		
HU 2002000377	A2	20030128	(200323)	HU		
BR 2002000278	A	20030429	(200335)	PT		
EP 1229039	B1	20040102	(200406)	DE		
DE 50200179	G	20040205	(200412)	DE		
ES 2213712	T3	20040901	(200458)	ES		
MX 2002001186	A1	20040501	(200481)	ES		
IL 147949	A	20041215	(200504)	EN		
RU 2275375	C2	20060427	(200637)	RU		
CN 1217949	C	20050907	(200649)	ZH		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 1229039 A1		EP 2002-682	20020111
DE 10104966 A1		DE 2001-10104966	20010203
DE 50200179 G		DE 2002-500179	20020111
DE 50200179 G		EP 2002-682	20020111

ES 2213712 T3	EP 2002-682 20020111
CZ 2002000388 A3	CZ 2002-388 20020131
IL 147949 A	IL 2002-147949 20020131
JP 2002302495 A	JP 2002-24159 20020131
BR 2002000278 A	BR 2002-278 20020201
CN 1369497 A	CN 2002-103254 20020201
HU 2002000377 A2	HU 2002-377 20020201
KR 2002064867 A	KR 2002-5897 20020201
MX 2002001186 A1	MX 2002-1186 20020201
US 6472549 B1	US 2002-60287 20020201
RU 2275375 C2	RU 2002-102763 20020204
CN 1217949 C	CN 2002-103254 20020201

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 50200179 G	Based on	EP 1229039 A
ES 2213712 T3	Based on	EP 1229039 A

PRIORITY APPLN. INFO: DE 2001-10104966 20010203

INT. PATENT CLASSIF.:

MAIN:	C07F007-08; C07F007-12
IPC ORIGINAL:	C07F0007-00 [I,C]; C07F0007-08 [I,A]; C07F0007-14 [I,A]
IPC RECLASSIF.:	C07B0061-00 [I,A]; C07B0061-00 [I,C]; C07F0007-00 [I,C]; C07F0007-08 [I,A]; C07F0007-12 [I,A]; C07F0007-14 [I,A]

BASIC ABSTRACT:

EP 1229039 A1 UPAB: 20050706

NOVELTY - Production of 3-functionalized propyl silanes (I) by reacting allylic compounds (II) with silanes (III) at 0-200degreesC and 0.8-25 bar in the presence of a platinum catalyst comprises using a (III):(II) molar ratio of 3-100.

DETAILED DESCRIPTION - Production of 3-functionalized propyl silanes (I) by reacting allylic compounds of formula (II) with silanes of formula (III) at 0-200degreesC and 0.8-25 bar in the presence of a platinum catalyst comprises using a (III):(II) molar ratio of 3-100:1

H₂C=CH-CH₂X (II)R₂R₃R₄SiH (III)X = Cl, Br, I, F, CN, SCN, SH, SR, OH, NRR₁ or OR;R, R₁ = 1-6C alkyl or 3-7C alkyl (sic); andR₂-R₄ = H, halogen, 1-6C alkyl, 1-6C haloalkyl, 3-6C allyl (sic), 1-4C alkoxy, phenyl, aryl or aralkyl.

USE - None given.

ADVANTAGE - Using a large excess of (III) suppresses by-product formation, e.g. increasing the selectivity for 3-chloropropyl trichlorosilane (from the reaction of allyl chloride and trichlorosilane) from 74% to up to 85% and reducing propyl trichlorosilane formation by about 50%. MANUAL CODE: CPI: E05-E02B; E05-E02C; E05-E02D; E05-E03; N02-F02

TECH

ORGANIC CHEMISTRY - Preferred Process: The reaction is effected discontinuously in a stirred tank reactor or continuously in a catalyst-filled tubular reactor. The excess of (III) is provided by mixing (II) and (III) in suitable amounts, by recycling most of the product mixture to the top of a continuously operating tubular reactor, by using a cascade of at least two tubular reactors with injection of (II) between the reactors, and/or by using a single tubular reactor with 1-9 side inlets for (II). The catalyst concentration is 0.1-2000 ppm based on (II). The pressure is 0.8-10 bar.

ABEX SPECIFIC COMPOUNDS - (III) is trichlorosilane, methyldichlorosilane, ethyldichlorosilane, propyldichlorosilane or dimethylchlorosilane.

EXAMPLE - A tubular reactor (40 cm long, 150 ml capacity) filled with a 1% platinum/carbon catalyst (100 g) was flushed with 3-chloropropyl trichlorosilane to wet the catalyst and then supplied at 90 degrees C and 2 bar with a mixture of trichlorosilane and allyl chloride in a molar ratio of 2:1. Reactor effluent was recycled to the top of the reactor in a recycle:feed volume ratio of 30:1, giving an overall molar ratio of trichlorosilane to allyl chloride of 25:1. After a run time of 97 hours, a sample was analyzed and found to comprise 30.71 wt.% trichlorosilane, 0.78 wt.% allyl chloride, 7.51 wt.% silicon tetrachloride, 8.05 wt.% propyl trichlorosilane and 52.96 wt.% 3-chloropropyl trichlorosilane, corresponding to 85% selectivity based on allyl chloride.

AN.S DCR-140

CN.P PLATINUM

SDCN R03247

L136 ANSWER 7 OF 7 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
 ACCESSION NUMBER: 2000-367056 [32] WPIX
 DOC. NO. CPI: C2000-111030 [32]
 TITLE: Production of 3-functional propyl-silane compounds involves reacting functional allyl compounds with hydrogen-silane compounds in presence of a platinum-containing, multi-element catalyst
 DERWENT CLASS: E11
 INVENTOR: BATZ-SOH C; BATZ-SOHN C; KARCH R; KRAEUTER T; LANSINK H G J; LANSINK R H; LANSINK ROTGERINK H G; LANSINK ROTGERINK H G J; PRINZ M; SEEBALD S
 PATENT ASSIGNEE: (DEGS-C) DEGUSSA AG; (DEGS-C) DEGUSSA-HUELS AG
 COUNTRY COUNT: 26

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
DE 19857223	C1	20000608	(200032)*	DE	6[0]	
EP 1020473	A2	20000719	(200036)	DE		
JP 2000198791	A	20000718	(200040)	JA	7	
US 6153782	A	20001128	(200063)	EN		
EP 1020473	B1	20050420	(200528)	DE		
DE 59911934	G	20050525	(200538)	DE		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
DE 19857223	C1	DE 1998-19857223	19981211
DE 59911934	G	DE 1999-59911934	19991202
EP 1020473	A2	EP 1999-124116	19991202
EP 1020473	B1	EP 1999-124116	19991202
DE 59911934	G	EP 1999-124116	19991202
JP 2000198791	A	JP 1999-352062	19991210
US 6153782	A	US 1999-458101	19991210

FILING DETAILS:

PATENT NO

KIND

PATENT NO

DE 59911934 G

Based on

EP 1020473 A

PRIORITY APPLN. INFO: DE 1998-19857223 19981211

INT. PATENT CLASSIF.:

MAIN: C07F007-14IPC RECLASSIF.: B01J0023-42 [I,A]; B01J0023-42 [I,C]; B01J0023-54 [I,C];
B01J0023-62 [I,A]; C07B0061-00 [I,A]; C07B0061-00 [I,C];
C07F0007-00 [I,C]; C07F0007-12 [I,A]; C07F0007-14
[I,A]

BASIC ABSTRACT:

DE 19857223 C1 UPAB: 20060116

NOVELTY - A supported multi-element catalyst in which one of the elements is platinum is used as catalyst in a process for the production of 3-function-alised propylsilanes by reacting functional allyl compounds (e.g. allyl halides or allylamines) with organosilanes containing at least one hydrogen attached to silicon.

DETAILED DESCRIPTION - A process for the production of 3-functionalised propylsilanes involves the addition reaction of allyl compounds of formula H2C=CH-CH2X (IV) with silanes of formula R2R3R4SiH (V), in which

X = Cl, Br, I, F, CN, SCN, SH, SR, OH, NRR1 or OR;

R, R1 = 1-6C alkyl or 3-7C alkyl (sic);

R2-R4 = H, halogen, 1-6C alkyl or haloalkyl, 3-6C allyl, 1-4C alkoxy, phenyl, aryl or aralkyl

, at 0-200degreesC and 0.2-10 bar in presence of a supported multi-element catalyst in which one element is platinum.

USE - For the production of 3-functionalised propylsilanes.

ADVANTAGE - Enables the production of 3-functionalised propylsilanes with good yield and selectivity, without the disadvantages associated with prior-art catalysts, e.g. side reactions leading to the formation of propene, silicon tetrachloride and/or unfunctionalised propylsilanes, over-consumption of trichlorosilane, difficult work-up and costly disposal of by-products.

MANUAL CODE: CPI: E05-E02; E05-E02D; E05-E03; N02; N02-A; N03

Member(0002)

ABEQ EP 1020473 A2 UPAB 20060116

NOVELTY - A supported multi-element catalyst in which one of the elements is platinum is used as catalyst in a process for the production of 3-function-alised propylsilanes by reacting functional allyl compounds (e.g. allyl halides or allylamines) with organosilanes containing at least one hydrogen attached to silicon.

DETAILED DESCRIPTION - A process for the production of 3-functionalised propylsilanes involves the addition reaction of allyl compounds of formula H2C=CH-CH2X (IV) with silanes of formula R2R3R4SiH (V), in which

X = Cl, Br, I, F, CN, SCN, SH, SR, OH, NRR1 or

OR;

R, R1 = 1-6C alkyl or 3-7C alkyl (sic);

R2-R4 = H, halogen, 1-6C alkyl or haloalkyl, 3-6C allyl, 1-4C alkoxy, phenyl, aryl or aralkyl

, at 0-200degreesC and 0.2-10 bar in presence of a supported multi-element catalyst in which one element is platinum.

USE - For the production of 3-functionalised propylsilanes.

ADVANTAGE - Enables the production of 3-functionalised propylsilanes with good yield and selectivity, without the disadvantages associated with prior-art catalysts, e.g. side reactions leading to the formation of propene, silicon tetrachloride

and/or unfunctionalised propylsilanes, over-consumption of trichlorosilane, difficult work-up and costly disposal of by-products.

Member(0003)

ABEQ JP 2000198791 A UPAB 20060116

NOVELTY - A supported multi-element catalyst in which one of the elements is platinum is used as catalyst in a process for the production of 3-functionalised propylsilanes by reacting functional allyl compounds (e.g. allyl halides or allylamines) with organosilanes containing at least one hydrogen attached to silicon

DETAILED DESCRIPTION - A process for the production of 3-functionalised propylsilanes involves the addition reaction of allyl compounds of formula $H_2C=CH-CH_2X$ (IV) with silanes of formula $R_2R_3R_4SiH$ (V), in which

$X = Cl, Br, I, F, CN, SCN, SH, SR, OH, NRR_1$ or
OR;

$R, R_1 = 1-6C$ alkyl or $3-7C$ alkyl (sic);
 $R_2-R_4 = H$, halogen, $1-6C$ alkyl or haloalkyl, $3-6C$ allyl, $1-4C$ alkoxy, phenyl, aryl or aralkyl
, at $0-200$ degrees C and $0.2-10$ bar in presence of a supported multi-element catalyst in which one element is platinum

USE - For the production of 3-functionalised propylsilanes.

ADVANTAGE - Enables the production of 3-functionalised propylsilanes with good yield and selectivity, without the disadvantages associated with prior-art catalysts, e.g. side reactions leading to the formation of propene, silicon tetrachloride and/or unfunctionalised propylsilanes, over-consumption of trichlorosilane, difficult work-up and costly disposal of by-products.

Member(0004)

ABEQ US 6153782 A UPAB 20060116

NOVELTY - A supported multi-element catalyst in which one of the elements is platinum is used as catalyst in a process for the production of 3-functionalised propylsilanes by reacting functional allyl compounds (e.g. allyl halides or allylamines) with organosilanes containing at least one hydrogen attached to silicon

DETAILED DESCRIPTION - A process for the production of 3-functionalised propylsilanes involves the addition reaction of allyl compounds of formula $H_2C=CH-CH_2X$ (IV) with silanes of formula $R_2R_3R_4SiH$ (V), in which

$X = Cl, Br, I, F, CN, SCN, SH, SR, OH, NRR_1$ or
OR;

$R, R_1 = 1-6C$ alkyl or $3-7C$ alkyl (sic);
 $R_2-R_4 = H$, halogen, $1-6C$ alkyl or haloalkyl, $3-6C$ allyl, $1-4C$ alkoxy, phenyl, aryl or aralkyl
, at $0-200$ degrees C and $0.2-10$ bar in presence of a supported multi-element catalyst in which one element is platinum

USE - For the production of 3-functionalised propylsilanes.

ADVANTAGE - Enables the production of 3-functionalised propylsilanes with good yield and selectivity, without the disadvantages associated with prior-art catalysts, e.g. side reactions leading to the formation of propene, silicon tetrachloride and/or unfunctionalised propylsilanes, over-consumption of trichlorosilane, difficult work-up and costly disposal of

by-products.

TECH

INORGANIC CHEMISTRY - Preferred Catalyst: Other elements in the catalyst may be titanium, zirconium, hafnium, vanadium, chromium, molybdenum, tungsten, manganese, rhenium, iron, ruthenium, osmium, cobalt, rhodium, iridium, nickel, copper, silver, gold, zinc, aluminium, gallium, indium, tin, lead, antimony, bismuth, samarium and/or sulfur. The platinum component is an inorganic, organic or organometallic Pt compound and the support material is activated carbon, coke or graphite, zeolite, deloxane, carbide or an inorganic oxide such as silicon dioxide, aluminium oxide, silicate, titanium dioxide or zirconium dioxide.

ORGANIC CHEMISTRY - Preferred Compounds: Silanes (V) comprise trichlorosilane, methyl-hydrogen-dichlorosilane, propyl-hydrogen-dichlorosilane or dimethyl-hydrogen-chlorosilane.

ABEX EXAMPLE - A mixture of 99 g activated carbon and an aqueous solution containing 1.32 g hexachloroplatinic acid and 1.14 g indium nitrate was dried in a current of air at 100degreesC, reduced with a hydrogen/nitrogen mixture (5% H₂) at 500degreesC, washed with water and dried in a vacuum oven for 12 hours at 120degreesC to give catalyst 5. A mixture of 100 g 3-chloropropyl-trichlorosilane (Cl-PTS), 76.6 g allyl chloride (ACl), 142.3 g trichlorosilane (TCS) and 2 g catalyst 5 was refluxed with the aid of a cold (-30degreesC) reflux condenser. The temperature of the mixture rose from 40 to a constant level of 110degreesC due to the conversion of low-boiling reactants, after which the reaction was stopped. After condensation of the Cl-PTS used as solvent, GC analysis showed contents of 3.13 wt% TCS, 1.21 wt% ACl, 18.75 wt% silicon tetrachloride, 2.40 wt% propyl-trichlorosilane and 74.51 wt% Cl-PTS, giving a selectivity of 3.19:1, corresponding to a yield of 76.1% Cl-PTS based on ACl

AN.S DCR-2194

CN.P PLATINIC CHLORIDE

SDCN R01998; RA0B7E

SDRN 1998

CM 1

Cl

CM 2

Pt

CM 3

Cl

=> file stnguide

FILE 'STNGUIDE' ENTERED AT 14:24:38 ON 25 OCT 2007

USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT

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FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Oct 19, 2007 (20071019/UP).

=> d his ful

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(FILE 'HOME' ENTERED AT 11:05:26 ON 25 OCT 2007)

FILE 'STNGUIDE' ENTERED AT 11:05:28 ON 25 OCT 2007

FILE 'ZCAPLUS' ENTERED AT 11:05:54 ON 25 OCT 2007
      E US2006-583553/APPS

FILE 'HCAPLUS' ENTERED AT 11:06:11 ON 25 OCT 2007
L1      1 SEA ABB=ON    PLU=ON   US2006-583553/APPS
          SAVE TEMP L1 NWA553HCAAPP/A

FILE 'WPIX' ENTERED AT 11:06:32 ON 25 OCT 2007
L2      1 SEA ABB=ON    PLU=ON   US2006-583553/APPS
          SAVE TEMP L2 NWA553WPIAPP/A

FILE 'STNGUIDE' ENTERED AT 11:06:58 ON 25 OCT 2007
      D QUE L1

FILE 'HCAPLUS' ENTERED AT 11:07:17 ON 25 OCT 2007
      D IBIB ED ABS IND L1

FILE 'STNGUIDE' ENTERED AT 11:07:17 ON 25 OCT 2007
      D QUE L2

FILE 'WPIX' ENTERED AT 11:08:00 ON 25 OCT 2007
      D IALL CODE L2

FILE 'STNGUIDE' ENTERED AT 11:08:02 ON 25 OCT 2007

FILE 'REGISTRY' ENTERED AT 11:08:56 ON 25 OCT 2007

FILE 'HCAPLUS' ENTERED AT 11:08:59 ON 25 OCT 2007
L3      TRA PLU=ON    L1 1- RN :      9 TERMS

FILE 'REGISTRY' ENTERED AT 11:09:02 ON 25 OCT 2007
L4      9 SEA ABB=ON    PLU=ON   L3
          SAVE TEMP L4 NWA553REGAPP/A
          D SCAN

L5      1 SEA ABB=ON    PLU=ON   L4 AND "CL3 H SI"/MF
L6      1 SEA ABB=ON    PLU=ON   L4 AND F/ELS AND CL/ELS
L7      7 SEA ABB=ON    PLU=ON   L4 AND F/ELS
L8      6 SEA ABB=ON    PLU=ON   L7 NOT L6
          D SCAN
L9      1 SEA ABB=ON    PLU=ON   L4 AND PT/ELS

FILE 'LREGISTRY' ENTERED AT 11:12:26 ON 25 OCT 2007
L10     STR

FILE 'REGISTRY' ENTERED AT 11:16:21 ON 25 OCT 2007
      D SCAN L6

FILE 'CASREACT' ENTERED AT 11:16:40 ON 25 OCT 2007
L11     0 SEA SSS SAM L10 (      0 REACTIONS)
          D QUE STAT

FILE 'STNGUIDE' ENTERED AT 11:18:09 ON 25 OCT 2007
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10/583,553

FILE 'LREGISTRY' ENTERED AT 11:18:51 ON 25 OCT 2007
L12 STR L10

FILE 'CASREACT' ENTERED AT 11:19:05 ON 25 OCT 2007
L13 0 SEA SSS SAM L12 (0 REACTIONS)
D QUE STAT

FILE 'STNGUIDE' ENTERED AT 11:24:53 ON 25 OCT 2007

FILE 'STNGUIDE' ENTERED AT 11:49:20 ON 25 OCT 2007

FILE 'LREGISTRY' ENTERED AT 11:49:26 ON 25 OCT 2007
L14 STR

FILE 'CASREACT' ENTERED AT 11:52:39 ON 25 OCT 2007
L15 1 SEA SSS SAM L14 (6 REACTIONS)
D SCAN

FILE 'STNGUIDE' ENTERED AT 11:53:11 ON 25 OCT 2007
D QUE STAT

FILE 'LREGISTRY' ENTERED AT 11:53:44 ON 25 OCT 2007
L16 STR L14

FILE 'CASREACT' ENTERED AT 11:57:12 ON 25 OCT 2007
L17 13 SEA SSS SAM L16 (95 REACTIONS)

FILE 'LREGISTRY' ENTERED AT 11:57:52 ON 25 OCT 2007
L18 STR L16

FILE 'CASREACT' ENTERED AT 11:58:09 ON 25 OCT 2007
L19 14 SEA SSS SAM L18 (98 REACTIONS)

FILE 'STNGUIDE' ENTERED AT 11:58:18 ON 25 OCT 2007
D QUE STAT

FILE 'REGISTRY' ENTERED AT 11:58:39 ON 25 OCT 2007
D SCAN L4

FILE 'STNGUIDE' ENTERED AT 11:58:50 ON 25 OCT 2007

FILE 'CASREACT' ENTERED AT 12:03:24 ON 25 OCT 2007
D QUE STAT
L20 294 SEA SSS FUL L18 (2129 REACTIONS)
SAVE TEMP L20 NWA553CRXP/A

FILE 'STNGUIDE' ENTERED AT 12:06:21 ON 25 OCT 2007

FILE 'LREGISTRY' ENTERED AT 12:07:18 ON 25 OCT 2007
L21 STR L18

FILE 'CASREACT' ENTERED AT 12:10:55 ON 25 OCT 2007
L22 0 SEA SUB=L20 SSS SAM L21 (0 REACTIONS)
D QUE STAT

FILE 'STNGUIDE' ENTERED AT 12:12:06 ON 25 OCT 2007

FILE 'CASREACT' ENTERED AT 12:14:30 ON 25 OCT 2007
D QUE STAT
L23 1 SEA SUB=L20 SSS FUL L21 (5 REACTIONS)

10/583,553

SAVE TEMP L23 NWA553CRXR1/A

L24 FILE 'LREGISTRY' ENTERED AT 12:16:09 ON 25 OCT 2007
STR L18

L25 FILE 'CASREACT' ENTERED AT 12:16:51 ON 25 OCT 2007
0 SEA SUB=L20 SSS SAM L24 (0 REACTIONS)

FILE 'STNGUIDE' ENTERED AT 12:17:41 ON 25 OCT 2007
D QUE STAT

L26 FILE 'CASREACT' ENTERED AT 12:20:36 ON 25 OCT 2007
2 SEA SUB=L20 SSS FUL L24 (6 REACTIONS)
SAVE TEMP L26 NWA553CRXR2/A
D SCAN
D QUE STAT
D QUE STAT L23
D SCAN L23

FILE 'STNGUIDE' ENTERED AT 12:24:39 ON 25 OCT 2007

FILE 'ZCPLUS' ENTERED AT 12:31:48 ON 25 OCT 2007
L27 QUE ABB=ON PLU=ON PT? OR ?PLATIN? OR HPT?

FILE 'CASREACT' ENTERED AT 12:32:27 ON 25 OCT 2007
L*** DEL 0 S L20 AND L27/IA
L28 29 SEA ABB=ON PLU=ON L20 AND (PT?/BI,AB OR ?PLATIN?/BI,AB OR
HPT?/BI,AB)
L29 29 SEA ABB=ON PLU=ON L28 OR L23 OR L26

FILE 'ZCPLUS' ENTERED AT 12:35:21 ON 25 OCT 2007
L30 QUE ABB=ON PLU=ON ?H2PT?

FILE 'CASREACT' ENTERED AT 12:35:40 ON 25 OCT 2007
L31 7 SEA ABB=ON PLU=ON L20 AND (?H2PT?/BI,AB)
L32 31 SEA ABB=ON PLU=ON L31 OR L29

FILE 'STNGUIDE' ENTERED AT 12:36:13 ON 25 OCT 2007

FILE 'ZCPLUS' ENTERED AT 12:36:59 ON 25 OCT 2007
L33 QUE ABB=ON PLU=ON JUST, E?/AU
L34 QUE ABB=ON PLU=ON GIESSLER, S?/AU
L35 QUE ABB=ON PLU=ON JENKNER, P?/AU
L36 QUE ABB=ON PLU=ON (DEGUSSA OR (DE(W)GUSSA))/CS,SO,PA
L37 QUE ABB=ON PLU=ON AY<2005 OR PY<2005 OR PRY<2005 OR MY<2005
OR REVIEW/DT
L38 QUE ABB=ON PLU=ON AY<2005 OR PY<2005 OR PRY<2005

FILE 'CASREACT' ENTERED AT 12:39:04 ON 25 OCT 2007
L39 2 SEA ABB=ON PLU=ON L32 AND (L33 OR L34 OR L35 OR L36)
SAVE TEMP L39 NWA553CRXINV/A

L40 29 SEA ABB=ON PLU=ON L32 NOT L39

L41 26 SEA ABB=ON PLU=ON L40 AND L37
SAVE TEMP L41 NWA553CRXB/A

FILE 'STNGUIDE' ENTERED AT 12:40:10 ON 25 OCT 2007
D SAVED

FILE 'CHEMINFORMRX' ENTERED AT 12:41:24 ON 25 OCT 2007
D QUE L20

L42 6 SEA SSS SAM L18 (17 REACTIONS)
 D QUE STAT
 L43 117 SEA SSS FUL L18 (385 REACTIONS)
 SAVE TEMP L43 NWA553CHMP/A
 D QUE L26
 L44 0 SEA SUB=L43 SSS SAM L24 (0 REACTIONS)
 D QUE STAT
 L45 0 SEA SUB=L43 SSS FUL L24 (0 REACTIONS)
 SAVE TEMP L45 NWA553CHMR1/A
 L46 4 SEA ABB=ON PLU=ON L43 AND ((PT?/BI,AB OR ?PLATIN?/BI,AB OR
 HPT?/BI,AB) OR (?H2PT?/BI,AB))
 D SCAN
 L47 0 SEA ABB=ON PLU=ON L43 AND ((PT?/TI OR ?PLATIN?/TI OR
 HPT?/TI) OR (?H2PT?/TI))
 L48 4 SEA ABB=ON PLU=ON L46 OR L47
 L49 0 SEA ABB=ON PLU=ON L48 AND (L33 OR L34 OR L35 OR L36)
 L50 4 SEA ABB=ON PLU=ON L48 AND L37
 SAVE TEMP L50 NWA553CHMB/A

FILE 'STNGUIDE' ENTERED AT 12:47:14 ON 25 OCT 2007
 D SAVED

FILE 'ZCPLUS' ENTERED AT 12:48:56 ON 25 OCT 2007

L51 QUE ABB=ON PLU=ON HYDROSIL? OR (HYDRO(W)(SILAT? OR SILYLAT?))
 L52 QUE ABB=ON PLU=ON ?FLUOROOLEFIN? OR ?FLUOROALKEN? OR
 ((?FLUOR? OR PERFLUOR? OR OLIGOFLUOR? OR DIFLUOR? OR TRIFLUOR?)
 (3A) (?OLEFIN? OR ?ALKEN?))
 L53 QUE ABB=ON PLU=ON ?CHLOROSIL? OR ((?CHLOR? OR DICHLOR? OR
 TRICHLOR?) (3A) (?SILYL? OR ?SILAN?)) OR (?SILYL?(1T)?CHLORID?)
 D QUE L27
 D QUE L30
 L54 QUE ABB=ON PLU=ON ?CL6PT?
 L55 QUE ABB=ON PLU=ON ?HEXACHLOROPLATIN?
 L56 QUE ABB=ON PLU=ON ?CATALY?
 L57 QUE ABB=ON PLU=ON F OR ?FLUORO? OR ?FLUORID?
 L58 QUE ABB=ON PLU=ON ?FLUORIN?
 L59 QUE ABB=ON PLU=ON CL OR CHLORINAT? OR ?CHLORO? OR ?CHLORID?
 L60 QUE ABB=ON PLU=ON SI OR SILICON
 L61 QUE ABB=ON PLU=ON "ALKENES, REACTIONS"+PFT,OLD,NEW,NT/CT
 L62 QUE ABB=ON PLU=ON ALKENES+PFT,OLD,NEW/CT (L) (L57 OR L58)
 L63 QUE ABB=ON PLU=ON L61 (L) (L57 OR L58)
 L64 QUE ABB=ON PLU=ON HYDROSILYLATION+PFT,OLD,NEW,NT/CT
 L65 QUE ABB=ON PLU=ON "HYDROSILYLATION CATALYSTS"+PFT,OLD,NEW,NT/
 CT
 L66 QUE ABB=ON PLU=ON C07F0007-14/IPC

FILE 'HCPLUS' ENTERED AT 13:05:15 ON 25 OCT 2007

L67 14 SEA ABB=ON PLU=ON L6 (L) (PREP+NT)/RL

FILE 'STNGUIDE' ENTERED AT 13:06:04 ON 25 OCT 2007

FILE 'HCPLUS' ENTERED AT 13:06:28 ON 25 OCT 2007

L68 431 SEA ABB=ON PLU=ON L8(L)(RACT+NT)/RL
 L69 2354 SEA ABB=ON PLU=ON L5 (L) (RACT+NT)/RL
 L70 9 SEA ABB=ON PLU=ON L68 AND L69 AND L67
 L71 182 SEA ABB=ON PLU=ON L9(L)CAT/RL
 L72 2 SEA ABB=ON PLU=ON L70 AND L71
 L73 1594 SEA ABB=ON PLU=ON ((L62 OR L63))(L) (RACT+NT)/RL

L74 1963 SEA ABB=ON PLU=ON L68 OR L73
 L75 45 SEA ABB=ON PLU=ON L74 (L) L51
 L76 36 SEA ABB=ON PLU=ON L74 AND L64
 L77 31 SEA ABB=ON PLU=ON L74 AND L69
 L78 875 SEA ABB=ON PLU=ON L65 (L) (L27 OR L30 OR L54 OR L55)
 L79 11 SEA ABB=ON PLU=ON (L75 OR L76 OR L77) AND L78
 L80 19 SEA ABB=ON PLU=ON (L75 OR L76 OR L77) AND ((PT?/OBI OR
 ?PLATIN?/OBI OR HPT?/OBI) OR (?H2PT?/OBI) OR (?CL6PT?/OBI) OR
 (?HEXACHLOROPLATIN?/OBI))
 L81 24 SEA ABB=ON PLU=ON L70 OR L72 OR L79 OR L80
 L82 24 SEA ABB=ON PLU=ON L81 AND (L27 OR L30 OR (L51 OR L52 OR L53
 OR L54 OR L55 OR L56 OR L57 OR L58 OR L59 OR L60 OR L61 OR L62
 OR L63 OR L64 OR L65))
 L83 24 SEA ABB=ON PLU=ON (L81 OR L82)
 L84 2 SEA ABB=ON PLU=ON L83 AND (L33 OR L34 OR L35 OR L36)
 L85 1 SEA ABB=ON PLU=ON L84 AND L1
 L86 2 SEA ABB=ON PLU=ON (L84 OR L85)
 SAVE TEMP L86 NWA553HCAINV/A

FILE 'STNGUIDE' ENTERED AT 13:14:02 ON 25 OCT 2007

FILE 'HCAPLUS' ENTERED AT 13:14:05 ON 25 OCT 2007

L87 22 SEA ABB=ON PLU=ON L83 NOT L86
 L88 18 SEA ABB=ON PLU=ON L87 AND L37
 SAVE TEMP L88 NWA553HCAB/A

FILE 'STNGUIDE' ENTERED AT 13:16:02 ON 25 OCT 2007

D SAVED

FILE 'STNGUIDE' ENTERED AT 13:34:20 ON 25 OCT 2007

FILE 'USPATFULL, USPATOLD, USPAT2' ENTERED AT 13:34:34 ON 25 OCT 2007

L89 243 SEA ABB=ON PLU=ON L66
 L90 226 SEA ABB=ON PLU=ON L8
 L91 101 SEA ABB=ON PLU=ON L6
 L92 7 SEA ABB=ON PLU=ON L89 AND (L90 OR L91)
 L93 1312 SEA ABB=ON PLU=ON L5
 L94 6 SEA ABB=ON PLU=ON L92 AND L93
 L95 81 SEA ABB=ON PLU=ON L9
 L96 2 SEA ABB=ON PLU=ON L92 AND L95
 L97 7 SEA ABB=ON PLU=ON L92 OR L94 OR L96
 L98 1 SEA ABB=ON PLU=ON L97 AND (L33 OR L34 OR L35 OR L36)
 SAVE TEMP L98 NWA553USPINV/A
 L99 6 SEA ABB=ON PLU=ON L97 NOT L98
 L100 6 SEA ABB=ON PLU=ON L99 AND L38
 SAVE TEMP L100 NWA553USPB/A

FILE 'STNGUIDE' ENTERED AT 13:37:14 ON 25 OCT 2007

D SAVED

FILE 'LWPI' ENTERED AT 13:37:33 ON 25 OCT 2007

L101 QUE ABB=ON PLU=ON N02-F/MC
 L102 QUE ABB=ON PLU=ON (A678(P)Q421)/M0,M1,M2,M3,M4,M5,M6
 L103 QUE ABB=ON PLU=ON (H721(P)M730(P)(H601 OR H609 OR H685 OR
 H684 OR H689))/M0,M1,M2,M3,M4,M5,M6
 L104 QUE ABB=ON PLU=ON (B114(P)M730(P)(B751 OR B752))/M0,M1,M2,M3,
 M4,M5,M6
 L105 QUE ABB=ON PLU=ON (B414(P)M720(P)N213(P)(H601 OR H509 OR
 H684 OR H685 OR H689))/M0,M1,M2,M3,M4,M5,M6

FILE 'WPIX' ENTERED AT 13:41:09 ON 25 OCT 2007

L106 2 SEA ABB=ON PLU=ON L102 AND L103 AND L104 AND L105
 L107 362 SEA ABB=ON PLU=ON C07F0007-14/IPC
 L*** DEL 128 S L107 AND L102
 L108 38 SEA ABB=ON PLU=ON L107 AND L105
 L109 28 SEA ABB=ON PLU=ON L108 AND (L101 OR L102)
 L110 2 SEA ABB=ON PLU=ON L103 AND L104 AND L105 AND (L101 OR L102)
 L111 29 SEA ABB=ON PLU=ON L106 OR L109 OR L110
 L112 20 SEA ABB=ON PLU=ON L51 (10A) L52
 L113 2 SEA ABB=ON PLU=ON L112 (20A) L53
 L114 30 SEA ABB=ON PLU=ON L111 OR L113
 L115 28 SEA ABB=ON PLU=ON L114 AND L66
 L116 30 SEA ABB=ON PLU=ON L114 OR L115
 L117 30 SEA ABB=ON PLU=ON L116 AND (L27 OR L30 OR (L51 OR L52 OR L53
 OR L54 OR L55 OR L56 OR L57 OR L58 OR L59 OR L60))
 L118 6 SEA ABB=ON PLU=ON L117 AND (L33 OR L34 OR L35 OR L36)
 SAVE TEMP L118 NWA553WPIINV/A
 L119 24 SEA ABB=ON PLU=ON L117 NOT L118
 L120 24 SEA ABB=ON PLU=ON L119 AND L38
 SAVE TEMP L120 NWA553WPIB/A
 D TRI 20-24
 D SAVED

FILE 'JAPIO' ENTERED AT 13:50:55 ON 25 OCT 2007

L121 88 SEA ABB=ON PLU=ON C07F0007-14/IPC
 L122 41 SEA ABB=ON PLU=ON L121 AND L53
 L123 2 SEA ABB=ON PLU=ON L121 AND L52
 L124 2 SEA ABB=ON PLU=ON L122 AND L123
 D BIB L124 1-2
 SAVE TEMP L124 NWA553JAPB/A

FILE 'STNGUIDE' ENTERED AT 13:52:26 ON 25 OCT 2007

FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 13:52:34 ON 25 OCT 2007

L125 2 SEA ABB=ON PLU=ON L8
 L126 27 SEA ABB=ON PLU=ON L5
 L127 0 SEA ABB=ON PLU=ON L6
 L128 0 SEA ABB=ON PLU=ON L125 AND L126
 L129 0 SEA ABB=ON PLU=ON (L127 OR L128)

FILE 'STNGUIDE' ENTERED AT 13:53:15 ON 25 OCT 2007

FILE 'MEDLINE, BIOSIS, EMBASE, PASCAL, SCISEARCH, CONFSCI, DISSABS'
ENTERED AT 13:53:33 ON 25 OCT 2007

L130 26 SEA ABB=ON PLU=ON L51(15A) L52
 L131 6 SEA ABB=ON PLU=ON L130 (20A) L53
 L132 5 SEA ABB=ON PLU=ON L131 AND (L27 OR L30 OR L54 OR L55)
 L133 5 SEA ABB=ON PLU=ON L132 AND (L56 OR L60 OR (L57 OR L58) OR
 L59)
 L134 0 SEA ABB=ON PLU=ON L133 AND (L33 OR L34 OR L35 OR L36)
 D SCAN L133
 SAVE TEMP L133 NWA553MULB/A

FILE 'STNGUIDE' ENTERED AT 14:02:45 ON 25 OCT 2007

D SAVED
 D QUE STAT L20
 D QUE STAT L23
 D QUE STAT L26
 D QUE NOS L32
 D QUE NOS L41

D QUE STAT L43
D QUE STAT L45
D QUE NOS L50
D QUE L88
D QUE L100
D QUE L120
D QUE L133
D QUE L129
D QUE L124

FILE 'CASREACT, CHEMINFORMRX, HCAPLUS, USPATFULL, WPIX, JAPIO, SCISEARCH'
ENTERED AT 14:08:14 ON 25 OCT 2007

L135 66 DUP REM L41 L50 L88 L100 L120 L124 L133 L129 (19 DUPLICATES REM
ANSWERS '1-26' FROM FILE CASREACT
ANSWERS '27-30' FROM FILE CHEMINFORMRX
ANSWERS '31-37' FROM FILE HCAPLUS
ANSWERS '38-39' FROM FILE USPATFULL
ANSWERS '40-62' FROM FILE WPIX
ANSWERS '63-64' FROM FILE JAPIO
ANSWERS '65-66' FROM FILE SCISEARCH
SAVE TEMP L135 NWA553MAIN/A

FILE 'STNGUIDE' ENTERED AT 14:08:36 ON 25 OCT 2007

FILE 'CASREACT, CHEMINFORMRX, HCAPLUS, USPATFULL, WPIX, JAPIO, SCISEARCH'
ENTERED AT 14:09:26 ON 25 OCT 2007
D IBIB ABS FHIT

FILE 'STNGUIDE' ENTERED AT 14:09:31 ON 25 OCT 2007

FILE 'CASREACT, CHEMINFORMRX, HCAPLUS, USPATFULL, WPIX, JAPIO, SCISEARCH'
ENTERED AT 14:09:50 ON 25 OCT 2007
D IBIB ABS FHIT 2-26

FILE 'STNGUIDE' ENTERED AT 14:10:20 ON 25 OCT 2007

FILE 'CASREACT, CHEMINFORMRX, HCAPLUS, USPATFULL, WPIX, JAPIO, SCISEARCH'
ENTERED AT 14:13:58 ON 25 OCT 2007
D BIB AB FHIT 27-30

FILE 'STNGUIDE' ENTERED AT 14:14:01 ON 25 OCT 2007

FILE 'CASREACT, CHEMINFORMRX, HCAPLUS, USPATFULL, WPIX, JAPIO, SCISEARCH'
ENTERED AT 14:14:53 ON 25 OCT 2007
D IBIB ED ABS HITIND HITSTR 31-37

FILE 'STNGUIDE' ENTERED AT 14:14:56 ON 25 OCT 2007

FILE 'CASREACT, CHEMINFORMRX, HCAPLUS, USPATFULL, WPIX, JAPIO, SCISEARCH'
ENTERED AT 14:15:38 ON 25 OCT 2007
D IBIB AB HITSTR 38-39

FILE 'STNGUIDE' ENTERED AT 14:15:40 ON 25 OCT 2007

FILE 'CASREACT, CHEMINFORMRX, HCAPLUS, USPATFULL, WPIX, JAPIO, SCISEARCH'
ENTERED AT 14:16:34 ON 25 OCT 2007
D IALL ABEQ TECH ABEX FRAGHITSTR 40-62

FILE 'STNGUIDE' ENTERED AT 14:16:52 ON 25 OCT 2007

10/583,553

FILE 'CASREACT, CHEMINFORMRX, HCAPLUS, USPATFULL, WPIX, JAPIO, SCISEARCH'
ENTERED AT 14:19:30 ON 25 OCT 2007
D IBIB AB 63-64

FILE 'STNGUIDE' ENTERED AT 14:19:36 ON 25 OCT 2007

FILE 'CASREACT, CHEMINFORMRX, HCAPLUS, USPATFULL, WPIX, JAPIO, SCISEARCH'
ENTERED AT 14:20:06 ON 25 OCT 2007
D IBIB AB 5-66

FILE 'STNGUIDE' ENTERED AT 14:20:15 ON 25 OCT 2007

FILE 'CASREACT, CHEMINFORMRX, HCAPLUS, USPATFULL, WPIX, JAPIO, SCISEARCH'
ENTERED AT 14:20:45 ON 25 OCT 2007
D IBIB AB 65-66

FILE 'STNGUIDE' ENTERED AT 14:20:46 ON 25 OCT 2007

D QUE NOS L39
D QUE NOS L49
D QUE L86
D QUE L98
D QUE L118
D QUE L134
D QUE L129

FILE 'CASREACT, HCAPLUS, USPATFULL, WPIX' ENTERED AT 14:22:41 ON 25 OCT
2007

L136 7 DUP REM L39 L49 L86 L98 L118 L134 L129 (4 DUPLICATES REMOVED)
ANSWERS '1-2' FROM FILE CASREACT
ANSWER '3' FROM FILE USPATFULL
ANSWERS '4-7' FROM FILE WPIX
SAVE TEMP L136 NWA553INV/A

FILE 'STNGUIDE' ENTERED AT 14:22:54 ON 25 OCT 2007

FILE 'CASREACT, USPATFULL, WPIX' ENTERED AT 14:23:14 ON 25 OCT 2007
D IBIB AB FHIT 1-2

FILE 'STNGUIDE' ENTERED AT 14:23:17 ON 25 OCT 2007

FILE 'CASREACT, USPATFULL, WPIX' ENTERED AT 14:23:56 ON 25 OCT 2007
D IBIB AB HITSTR 3

FILE 'STNGUIDE' ENTERED AT 14:23:58 ON 25 OCT 2007

FILE 'CASREACT, USPATFULL, WPIX' ENTERED AT 14:24:27 ON 25 OCT 2007
D IALL ABEQ TECH ABEX FRAGHITSTR 4-7

FILE 'STNGUIDE' ENTERED AT 14:24:32 ON 25 OCT 2007

FILE 'STNGUIDE' ENTERED AT 14:24:38 ON 25 OCT 2007

FILE HOME

FILE STNGUIDE
FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Oct 19, 2007 (20071019/UP).

FILE ZCAPLUS

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FILE COVERS 1907 - 25 Oct 2007 VOL 147 ISS 18
FILE LAST UPDATED: 24 Oct 2007 (20071024/ED)

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FILE HCPLUS

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FILE COVERS 1907 - 25 Oct 2007 VOL 147 ISS 18
FILE LAST UPDATED: 24 Oct 2007 (20071024/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE WPIX

FILE LAST UPDATED: 18 OCT 2007 <20071018/UP>
MOST RECENT THOMSON SCIENTIFIC UPDATE: 200767 <200767/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> Now containing more than 1 million chemical structures in DCR <<<

>>> IPC Reform backfile reclassification has been loaded to September 6th 2007. No update date (UP) has been created for the reclassified documents, but they can be identified by 20060101/UPIC and 20061231/UPIC, 20070601/UPIC and 20071001/UPIC. <<<

>>> Indian patent publication number format enhanced in DWPI - see NEWS <<

FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,
PLEASE VISIT:

http://www.stn-international.de/training_center/patents/stn_guide.pdf

FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE
<http://scientific.thomson.com/support/patents/coverage/latestupdates/>

>>> FOR DETAILS ON THE NEW AND ENHANCED DERWENT WORLD PATENTS INDEX
PLEASE SEE
[<<<](http://www.stn-international.de/stndatabases/details/dwpi_r.html)

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 23 OCT 2007 HIGHEST RN 951288-30-5
DICTIONARY FILE UPDATES: 23 OCT 2007 HIGHEST RN 951288-30-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

[<<<](http://www.cas.org/support/stngen/stndoc/properties.html)

FILE LREGISTRY

LREGISTRY IS A STATIC LEARNING FILE

NEW CAS INFORMATION USE POLICIES, ENTER HELP USAGETERMS FOR DETAILS.

FILE CASREACT

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FILE CONTENT: 1840 - 20 Oct 2007 VOL 147 ISS 18

New CAS Information Use Policies, enter HELP USAGETERMS for details.

* *
* CASREACT now has more than 13.8 million reactions *
* *****

*

*

*

Some CASREACT records are derived from the ZIC/VINITI database (1974-1999) provided by InfoChem, INPI data prior to 1986, and Biotransformations database compiled under the direction of Professor Dr. Klaus Kieslich.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE CHEMINFORMRX

FILE LAST UPDATED: 12 SEP 2007 <20070912/UP>

>>> CAS Registry Numbers are available for substances prior to 1995 <<<

FILE USPATFULL

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 23 Oct 2007 (20071023/PD)
FILE LAST UPDATED: 23 Oct 2007 (20071023/ED)
HIGHEST GRANTED PATENT NUMBER: US7287284
HIGHEST APPLICATION PUBLICATION NUMBER: US2007245440
CA INDEXING IS CURRENT THROUGH 23 Oct 2007 (20071023/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 23 Oct 2007 (20071023/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Aug 2007
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2007

FILE USPATOLD

FILE COVERS U.S. PATENTS 1790-1975
Produced using data provided by Univentio.

This database was created using Optical Character Recognition (OCR) technology. For this reason, some characters may be missing or mistranslated. In order to improve searchability and retrieval, CA indexing information has been added to the Title, Inventor, and Patent Assignee fields where possible. Please see HELP CASDATA for more information on the availability of CAS indexing in this database.

FILE USPAT2

FILE COVERS 2001 TO PUBLICATION DATE: 25 Oct 2007 (20071025/PD)
FILE LAST UPDATED: 25 Oct 2007 (20071025/ED)
HIGHEST GRANTED PATENT NUMBER: US2005118207
HIGHEST APPLICATION PUBLICATION NUMBER: US2007250974
CA INDEXING IS CURRENT THROUGH 25 Oct 2007 (20071025/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 25 Oct 2007 (20071025/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Aug 2007
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2007

FILE LWPI

LWPI IS A STATIC LEARNING FILE
>>> PATENT DRAWINGS AVAILABLE FOR DISPLAY <<<

FILE JAPIO

FILE LAST UPDATED: 25 SEP 2007 <20070925/UP>
FILE COVERS APRIL 1973 TO JUNE 28, 2007

>>> GRAPHIC IMAGES AVAILABLE <<<

FILE MEDLINE

FILE LAST UPDATED: 24 Oct 2007 (20071024/UP). FILE COVERS 1950 TO DATE.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE BIOSIS

FILE COVERS 1926 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1926 TO DATE.

RECORDS LAST ADDED: 24 October 2007 (20071024/ED)

BIOSIS has been augmented with 1.8 million archival records from 1926 through 1968. These records have been re-indexed to match current BIOSIS indexing.

FILE EMBASE

FILE COVERS 1974 TO 25 Oct 2007 (20071025/ED)

EMBASE is now updated daily. SDI frequency remains weekly (default) and biweekly.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE PASCAL

FILE LAST UPDATED: 22 OCT 2007 <20071022/UP>
FILE COVERS 1977 TO DATE.

>>> SIMULTANEOUS LEFT AND RIGHT TRUNCATION IS AVAILABLE
IN THE BASIC INDEX (/BI) FIELD <<<

FILE SCISEARCH

FILE COVERS 1974 TO 18 Oct 2007 (20071018/ED)

SCISEARCH has been reloaded, see HELP RLOAD for details.

FILE CONFSCI

FILE COVERS 1973 TO 18 Oct 2007 (20071018/ED)

CSA has resumed updates, see NEWS FILE

FILE DISSABS

FILE COVERS 1861 TO 26 SEP 2007 (20070926/ED)

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